SEQUENCE LISTING

<110> HARPOON THERAPEUTICS, INC.

<120> MSLN TARGETING TRISPECIFIC PROTEINS AND METHODS OF USE

<130> 47517-720.601

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<150> 62/657,434
<151> 2018-04-13

<150> 62/505,747
<151> 2017-05-12

<160> 379

<170> PatentIn version 3.5

<210> 1
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 1
Gln 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 Arg Thr Phe Ser Val Arg
20 25 30

Gly Met Ala Trp Tyr Arg Gln Ala Gly Asn Asn Arg Ala Leu Val Ala
35 40 45

Thr Met Asn Pro Asp Gly Phe Pro Asn Tyr Ala Asp Ala Val Lys Gly
50 55 60

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

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

Gly Pro Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
100 105 110

<210> 2
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 2
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Pro Ser Ile Glu
20 25 30

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

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

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ser
85 90 95

Ala Gly Arg Phe Lys Gly Asp Tyr Ala Gln Arg Ser Gly Met Asp Tyr
100 105 110

Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 3
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

polypeptide

<400> 3
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

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

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

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

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

Gly Gln Arg Ser Gly Val Arg Ala Phe Trp Gly Gln Gly Thr Gln Val
100 105 110

Thr Val Ser Ser
115

<210> 4
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 4
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Ser Thr Ser Asn Ile Asn
20 25 30

Asn Met Arg Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val

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        35                  40                  45

Ala Val Ile Thr Arg Gly Gly Tyr Ala Ile Tyr Leu Asp Ala Val Lys
    50                  55                  60

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

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

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

Phe Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115                 120


<210> 5
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 5
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Phe Gly Ile Asn
            20                  25                  30

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

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

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

Gln Met Asn Thr Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Asn
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85 90 95

Ala Arg Thr Tyr Thr Arg His Asp Tyr Trp Gly Gln Gly Thr Gln Val
100 105 110

Thr Val Ser Ser
115

<210> 6
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 6
Gln Val Arg Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Ile Ser Ala Phe Arg Leu Met
20 25 30

Ser Val Arg Trp Tyr Arg Gln Asp Pro Ser Lys Gln Arg Glu Trp Val
35 40 45

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

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

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

Ala Gly Gly Gly Pro Leu Gly Ser Arg Trp Leu Arg Gly Arg His Trp
100 105 110

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

<210> 7

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

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 7
Gln Val Arg Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Pro Phe Ser Ile Asn
20 25 30

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

Ala Ser Ile Ser Ser Ser Gly Asp Phe Thr Tyr Thr Asp Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
85 90 95

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

Thr Gln Val Thr Val Ser Ser
115

<210> 8
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 8
Gln Val Gln Pro Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Ala Met Ala Trp Tyr Arg Gln Ala Ser Gly Lys Glu Arg Glu Ser Val
        35   40   45

Ala Phe Val Ser Lys Asp Gly Lys Arg Ile Leu Tyr Leu Asp Ser Val
    50   55   60

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

Leu Gln Met Asp Asn Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys
                85   90   95

Asn Ser Ala Pro Gly Ala Ala Arg Asn Tyr Trp Gly Gln Gly Thr Gln
            100   105   110

Val Thr Val Ser Ser
        115

<210> 9
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 9
Gln Val Gln Pro Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1   5   10   15

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

Ala Met Ala Trp Tyr Arg Gln Ala Ser Gly Lys Glu Arg Glu Ser Val
        35   40   45

Ala Phe Val Ser Lys Asp Gly Lys Arg Ile Leu Tyr Leu Asp Ser Val
    50   55   60

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

Leu Gln Met Asp Asn Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys
85 90 95

Asn Ser Ala Pro Gly Ala Ala Arg Asn Val Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 10
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

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

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

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

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
50 55 60

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

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

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ser
        115

<210> 11
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 11
Gln Val Gln Ile Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1   5   10   15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Leu Thr Tyr Ser Ile Val
            20   25   30

Ala Val Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Met Val
        35   40   45

Ala Asp Ile Ser Pro Val Gly Asn Thr Asn Tyr Ala Asp Ser Val Lys
    50   55   60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys His
                85   90   95

Ile Val Arg Gly Trp Leu Asp Glu Arg Pro Gly Pro Gly Pro Ile Val
            100   105   110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
        115   120

<210> 12
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

polypeptide

<400> 12
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Thr Gly Gly
1 5 10 15

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

Gly Met Glu Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Trp Val
35 40 45

Ala Ser His Thr Ser Thr Gly Tyr Val Tyr Tyr Arg Asp Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Lys
85 90 95

Ala Asn Arg Gly Ser Tyr Glu Tyr Trp Gly Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 13
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 13
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Thr Thr Ser Ser Ile Asn Ser
20 25 30

Met Ser Trp Tyr Arg Gln Ala Gln Gly Lys Gln Arg Glu Pro Val Ala

35 40 45

Val Ile Thr Asp Arg Gly Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
50 55 60

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
85 90 95

Ile Ala Asp Trp Arg Gly Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
100 105 110

Ser Ser

<210> 14
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 14
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Gln Phe Val
35 40 45

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

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

Leu Gln Met Asn Asn Leu Arg Pro Asp Asp Thr Ala Val Tyr Tyr Cys

85 90 95

Asn Val Arg Arg Arg Gly Trp Gly Arg Thr Leu Glu Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 15
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 15
Gln Val Gln Leu Gly Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Phe Ser Pro Asn
20 25 30

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

Ala Ser Ile Asn Ser Ser Gly Ser Thr Asn Tyr Gly Asp Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

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

Val Thr Val Ser Ser
115

<210> 16

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

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 16
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Pro Ser Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ala Thr Ser Ala Ile Thr
20 25 30

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

Ala Arg Ile Ser Val Arg Glu Asp Lys Glu Asp Tyr Glu Asp Ser Val
50 55 60

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

Leu Gln Met Asn Asn Leu Gln Pro His Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Gly Ala Gln Arg Trp Gly Arg Gly Pro Gly Thr Thr Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser
115

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

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 17
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Ser Gly Ser Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
    50   55   60

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

Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
                85   90   95

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

Thr Val Ser Ser
        115

<210> 18
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 18
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1   5   10   15

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

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

Ala Trp Ile Asn Asn Ser Gly Val Gly Asn Thr Ala Glu Ser Val Lys
    50   55   60

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


Gln Met Asn Arg Leu Thr Pro Glu Asp Thr Asp Val Tyr Tyr Cys Arg
                85                  90                  95


Phe Tyr Arg Arg Phe Gly Ile Asn Lys Asn Tyr Trp Gly Gln Gly Thr
            100                 105                 110


Gln Val Thr Val Ser Ser
        115


<210> 19
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 19
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1               5                   10                  15


Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Phe Gly Asn Lys
            20                  25                  30


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


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


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


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


Asn Ala Leu Arg Thr Tyr Tyr Leu Asn Asp Pro Val Val Phe Ser Trp
            100                 105                 110
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Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120

<210> 20
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 20
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
20 25 30

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

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

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

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

Thr Tyr Ile Pro Leu Arg Gly Thr Leu His Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser
115

<210> 21
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

polypeptide

<400> 21
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Thr Ile Ser Asn Arg Gly Thr Ser Asn Tyr Ala Asn Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
85 90 95

Ala Arg Lys Trp Gly Arg Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr
100 105 110

Val Ser Ser
115

<210> 22
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

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

Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Arg Thr Ile Gly Ile Asn
20 25 30

Asp Met Ala Trp Tyr Arg Gln Ala Pro Gly Asn Gln Arg Glu Leu Val

35 40 45

Ala Thr Ile Thr Lys Gly Gly Thr Thr Asp Tyr Ala Asp Ser Val Asp
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
85 90 95

Thr Lys Arg Arg Glu Trp Ala Lys Asp Phe Glu Tyr Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser
115

<210> 23
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 23
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Ala Ile Gly Ser Ile Asn Ser
20 25 30

Met Ser Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Pro Val Ala
35 40 45

Val Ile Thr Asp Arg Gly Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
50 55 60

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val

85 90 95

Ile Ala Asp Trp Arg Gly Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
100 105 110

Ser Ser

<210> 24
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 24
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
20 25 30

Thr Met Tyr Trp Phe Arg Gln Ala Pro Gly Glu Glu Arg Glu Leu Val
35 40 45

Ala Thr Ile Asn Arg Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys
50 55 60

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

Gln Met Asn Arg Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
85 90 95

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser
115

<210> 25

<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 25
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Thr Ser Thr Thr Phe Ser Ile Asn Ser
20 25 30

Met Ser Trp Tyr Arg Gln Ala Pro Gly Asn Gln Arg Glu Pro Val Ala
35 40 45

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

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

Met Asp Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
85 90 95

Ile Ala Asp Trp Arg Gly Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
100 105 110

Ser Ser

<210> 26
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 26
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
    50   55   60

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

Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
                85   90   95

Asp Thr Ile Gly Thr Ala Arg Asp Tyr Trp Gly Gln Gly Thr Gln Val
            100   105   110

Thr Val Ser Ser
        115

<210> 27
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 27
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1   5   10   15

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

Thr Met Tyr Trp His Arg Gln Ala Pro Gly Asn Glu Arg Glu Leu Val
        35   40   45

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

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Val Arg Thr Thr Ser Tyr Pro Val Asp Phe Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser
115

<210> 28
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 28
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
20 25 30

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

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

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
85 90 95

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser
115

<210> 29
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 29
Gln 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 Gly Asp Trp Ser Ala Asn
20 25 30

Phe Met Tyr Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Arg Ile Ser Gly Arg Gly Val Val Asp Tyr Val Glu Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Val Ala Ser Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
100 105 110

<210> 30
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 30
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 Gly Asp Trp Ser Ala Asn
20 25 30

Phe Met Tyr Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Arg Ile Ser Gly Arg Gly Val Val Asp Tyr Val Glu Ser Val Lys
50 55 60

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

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

Val Ala Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 31
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 31
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 Gly Asp Trp Ser Ala Asn
20 25 30

Phe Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Arg Ile Ser Gly Arg Gly Val Val Asp Tyr Val Glu Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu

65 70 75 80

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

Val Ala Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105 110

<210> 32
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 32
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
20 25 30

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

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

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

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

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 33

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

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 33
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 Ser Thr Ser Ser Ile Asn
20 25 30

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

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

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

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

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 34
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 34
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 Ser Thr Ser Ser Ile Asn
20 25 30

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

Ser Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys
50 55 60

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

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

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 35
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 35
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
50 55 60

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

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

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

Thr Val Ser Ser Gly Gly
115

<210> 36
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 36
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
50 55 60

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

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

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

Thr Val Ser Ser Gly Gly
        115

<210> 37
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 37
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1   5   10   15

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

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

Ser Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
    50   55   60

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

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

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

Thr Val Ser Ser Gly Gly
        115

<210> 38
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

polypeptide

<400> 38
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

Thr Met Tyr Trp His Arg Gln Ala Pro Gly Asn Glu Arg Glu Leu Val
35 40 45

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

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

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

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

Val Thr Val Ser
115

<210> 39
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 39
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 Arg Thr Ser Thr Ile Asp
20 25 30

Thr Met Tyr Trp His Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val

35 40 45

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

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

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

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

Val Thr Val Ser Ser
115

<210> 40
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 40
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 Arg Thr Ser Thr Ile Asp
20 25 30

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

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

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

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ser

85 90 95

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

Val Thr Val Ser Ser
115

<210> 41
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 41
Glu Ser Gly Gly Gly Leu Val
1 5

<210> 42
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 42
Leu Ser Cys
1

<210> 43
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 43
Gly Arg Phe
1

<210> 44

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 44
Val Thr Val Ser Ser
1 5

<210> 45
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 45
Gln Leu Val Glu Ser Gly Gly Gly
1 5

<210> 46
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 46
Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
1 5 10

<210> 47
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 47
Ala Ser Gly
1

<210> 48
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 48
Arg Gln Ala Pro Gly
1 5

<210> 49
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 49
Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu
1 5 10 15

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

Cys

<210> 50
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 50
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 51
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 51
Gly Arg Thr Phe Ser Val Arg Gly Met Ala
1 5 10

<210> 52
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 52
Ile Asn Ser Ser Gly Ser Thr Asn Tyr Gly
1 5 10

<210> 53
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 53
Asn Ala Gly Gly Gly Pro Leu Gly Ser Arg
1 5 10

<210> 54
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 54
Gly Gly Asp Trp Ser Ala Asn Phe Met Tyr
1 5 10

<210> 55

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 55
Ile Ser Ser Gly Gly Ser Thr Asn Val Arg
1 5 10

<210> 56
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 56
Asn Ala Asp Thr Ile Gly Thr Ala Arg Asp
1 5 10

<210> 57
<211> 630
<212> PRT
<213> Homo sapiens

<400> 57
Met Ala Leu Pro Thr Ala Arg Pro Leu Leu Gly Ser Cys Gly Thr Pro
1 5 10 15

Ala Leu Gly Ser Leu Leu Phe Leu Leu Phe Ser Leu Gly Trp Val Gln
20 25 30

Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
35 40 45

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

Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
65 70 75 80

Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu

```
                85                  90                  95

Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
            100                 105                 110

Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro
        115                 120                 125

Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile
    130                 135                 140

Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
145                 150                 155                 160

Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
                165                 170                 175

Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
            180                 185                 190

Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
        195                 200                 205

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

Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
225                 230                 235                 240

Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
                245                 250                 255

Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
            260                 265                 270

Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
        275                 280                 285

Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
    290                 295                 300
```

```
Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
305                 310                 315                 320

Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
                325                 330                 335

Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
            340                 345                 350

Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
        355                 360                 365

Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
    370                 375                 380

Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
385                 390                 395                 400

Val Asn Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu
                405                 410                 415

Pro Gln Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln
            420                 425                 430

Leu Asp Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr
        435                 440                 445

Leu Cys Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser
    450                 455                 460

Ile Trp Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln
465                 470                 475                 480

Leu Asp Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn
                485                 490                 495

Gly Ser Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro
            500                 505                 510

Thr Glu Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu
```

515 520 525

Ala Thr Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val
530 535 540

Ala Glu Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala
545 550 555 560

Glu Glu Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln
565 570 575

Asp Asp Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn
580 585 590

Gly Tyr Leu Val Leu Asp Leu Ser Met Gln Glu Ala Leu Ser Gly Thr
595 600 605

Pro Cys Leu Leu Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu
610 615 620

Leu Ala Ser Thr Leu Ala
625 630

<210> 58
<211> 498
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 58
Gln 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 Arg Thr Phe Ser Val Arg
20 25 30

Gly Met Ala Trp Tyr Arg Gln Ala Gly Asn Asn Arg Ala Leu Val Ala
35 40 45

Thr Met Asn Pro Asp Gly Phe Pro Asn Tyr Ala Asp Ala Val Lys Gly

```
    50                  55                  60

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

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

Gly Pro Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly
            100                 105                 110

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
        115                 120                 125

Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser
    130                 135                 140

Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro
145                 150                 155                 160

Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp
                165                 170                 175

Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp
            180                 185                 190

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

Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser
    210                 215                 220

Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
225                 230                 235                 240

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
                245                 250                 255

Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
            260                 265                 270
```

```
Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
        275                 280                 285

Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr
    290                 295                 300

Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser
305                 310                 315                 320

Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr
                325                 330                 335

Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Ile
            340                 345                 350

Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        355                 360                 365

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln
    370                 375                 380

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

Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly Asn
                405                 410                 415

Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu
            420                 425                 430

Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser
        435                 440                 445

Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val Gln
    450                 455                 460

Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg
465                 470                 475                 480

Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu His His His His
```

485 490 495

His His

<210> 59
<211> 511
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 59
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Pro Ser Ile Glu
20 25 30

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

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

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ser
85 90 95

Ala Gly Arg Phe Lys Gly Asp Tyr Ala Gln Arg Ser Gly Met Asp Tyr
100 105 110

Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
115 120 125

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
130 135 140

Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr

```
145                 150                 155                 160

Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly
                165                 170                 175

Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr
            180                 185                 190

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
        195                 200                 205

Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala
    210                 215                 220

Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly
225                 230                 235                 240

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
                245                 250                 255

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
            260                 265                 270

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr
        275                 280                 285

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
    290                 295                 300

Ala Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
305                 310                 315                 320

Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
                325                 330                 335

Ala Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr
            340                 345                 350

Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp
        355                 360                 365
```

```
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly
    370                 375                 380

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val
385                 390                 395                 400

Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu
                405                 410                 415

Thr Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn
            420                 425                 430

Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly
        435                 440                 445

Thr Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu
    450                 455                 460

Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp
465                 470                 475                 480

Glu Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe
                485                 490                 495

Gly Gly Gly Thr Lys Leu Thr Val Leu His His His His His His
            500                 505                 510
```

<210> 60
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 60

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

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

```
Leu Met Ser Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Thr Val Val
        35                  40                  45

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

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

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

Gly Gln Arg Ser Gly Val Arg Ala Phe Trp Gly Gln Gly Thr Gln Val
            100                 105                 110

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        115                 120                 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
    130                 135                 140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser
145                 150                 155                 160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
                165                 170                 175

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195                 200                 205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
    210                 215                 220

Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
225                 230                 235                 240

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
```

```
                245                 250                 255

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270

Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln
        275                 280                 285

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
    290                 295                 300

Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr
305                 310                 315                 320

Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335

Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn
            340                 345                 350

Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380

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

Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly
                405                 410                 415

Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
            420                 425                 430

Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly
        435                 440                 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
    450                 455                 460
```

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val
465 470 475 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
485 490 495

Val Leu His His His His His His
500

<210> 61
<211> 511
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 61
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Ser Thr Ser Asn Ile Asn
20 25 30

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

Ala Val Ile Thr Arg Gly Gly Tyr Ala Ile Tyr Leu Asp Ala Val Lys
50 55 60

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

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

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

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

```
Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
    130                 135                 140

Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
145                 150                 155                 160

Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly
                165                 170                 175

Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr
            180                 185                 190

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
        195                 200                 205

Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala
    210                 215                 220

Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly
225                 230                 235                 240

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
                245                 250                 255

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
            260                 265                 270

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr
        275                 280                 285

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
    290                 295                 300

Ala Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
305                 310                 315                 320

Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
                325                 330                 335

Ala Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr
```

340 345 350

Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp
355 360 365

Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly
370 375 380

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val
385 390 395 400

Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu
405 410 415

Thr Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn
420 425 430

Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly
435 440 445

Thr Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu
450 455 460

Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp
465 470 475 480

Glu Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe
485 490 495

Gly Gly Gly Thr Lys Leu Thr Val Leu His His His His His His
500 505 510

<210> 62
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 62
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly

```
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Phe Gly Ile Asn
            20                  25                  30

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

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

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

Gln Met Asn Thr Leu Lys Pro Glu Asp Thr Ala Val Tyr Phe Cys Asn
                85                  90                  95

Ala Arg Thr Tyr Thr Arg His Asp Tyr Trp Gly Gln Gly Thr Gln Val
            100                 105                 110

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        115                 120                 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
    130                 135                 140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser
145                 150                 155                 160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
                165                 170                 175

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195                 200                 205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
    210                 215                 220
```

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


Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
                245                 250                 255


Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270


Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln
        275                 280                 285


Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
    290                 295                 300


Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr
305                 310                 315                 320


Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335


Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn
            340                 345                 350


Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365


Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380


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


Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly
                405                 410                 415


Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
            420                 425                 430


Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly
```

435 440 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
450 455 460

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val
465 470 475 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
485 490 495

Val Leu His His His His His His
500

<210> 63
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 63
Gln Val Arg Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Ile Ser Ala Phe Arg Leu Met
20 25 30

Ser Val Arg Trp Tyr Arg Gln Asp Pro Ser Lys Gln Arg Glu Trp Val
35 40 45

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

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

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

Ala Gly Gly Gly Pro Leu Gly Ser Arg Trp Leu Arg Gly Arg His Trp

```
            100                 105                 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser
            260                 265                 270

Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala
        275                 280                 285

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala
    290                 295                 300

Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser
305                 310                 315                 320
```

```
Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala
                325                 330                 335

Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr
            340                 345                 350

Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala
        355                 360                 365

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly
    370                 375                 380

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr
385                 390                 395                 400

Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr
                405                 410                 415

Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp
            420                 425                 430

Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr
        435                 440                 445

Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu
    450                 455                 460

Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu
465                 470                 475                 480

Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly
                485                 490                 495

Gly Gly Thr Lys Leu Thr Val Leu His His His His His His
            500                 505                 510
```

<210> 64
<211> 507
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 64
Gln Val Arg Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Pro Phe Ser Ile Asn
20 25 30

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

Ala Ser Ile Ser Ser Ser Gly Asp Phe Thr Tyr Thr Asp Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
85 90 95

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

Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
115 120 125

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
130 135 140

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
145 150 155 160

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
165 170 175

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr

```
        195                 200                 205

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
    210                 215                 220

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
                245                 250                 255

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
            260                 265                 270

Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp
        275                 280                 285

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg
    290                 295                 300

Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp
305                 310                 315                 320

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
                325                 330                 335

Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg
            340                 345                 350

His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly
        355                 360                 365

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

Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro
385                 390                 395                 400

Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser
                405                 410                 415
```

Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln
420 425 430

Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu
435 440 445

Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys
450 455 460

Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr
465 470 475 480

Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr
485 490 495

Lys Leu Thr Val Leu His His His His His His
500 505

<210> 65
<211> 505
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 65
Gln Val Gln Pro Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Ala Met Ala Trp Tyr Arg Gln Ala Ser Gly Lys Glu Arg Glu Ser Val
35 40 45

Ala Phe Val Ser Lys Asp Gly Lys Arg Ile Leu Tyr Leu Asp Ser Val
50 55 60

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

```
Leu Gln Met Asp Asn Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys
                85                  90                  95

Asn Ser Ala Pro Gly Ala Ala Arg Asn Tyr Trp Gly Gln Gly Thr Gln
            100                 105                 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val
        115                 120                 125

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu
    130                 135                 140

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met
145                 150                 155                 160

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser
                165                 170                 175

Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly
            180                 185                 190

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
        195                 200                 205

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
    210                 215                 220

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser
225                 230                 235                 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu
                245                 250                 255

Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys
            260                 265                 270

Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg
        275                 280                 285

Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys
```

```
    290                 295                 300

Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe
305                 310                 315                 320

Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn
                325                 330                 335

Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly
            340                 345                 350

Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly
        355                 360                 365

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    370                 375                 380

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

Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr
                405                 410                 415

Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro
            420                 425                 430

Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro
        435                 440                 445

Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala
    450                 455                 460

Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys
465                 470                 475                 480

Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu
                485                 490                 495

Thr Val Leu His His His His His His
            500                 505
```

<210> 66
<211> 505
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 66
Gln Val Gln Pro Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Ala Met Ala Trp Tyr Arg Gln Ala Ser Gly Lys Glu Arg Glu Ser Val
35 40 45

Ala Phe Val Ser Lys Asp Gly Lys Arg Ile Leu Tyr Leu Asp Ser Val
50 55 60

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

Leu Gln Met Asp Asn Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys
85 90 95

Asn Ser Ala Pro Gly Ala Ala Arg Asn Val Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val
115 120 125

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu
130 135 140

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met
145 150 155 160

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser
165 170 175

```
Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly
            180                 185                 190

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
        195                 200                 205

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
    210                 215                 220

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser
225                 230                 235                 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu
                245                 250                 255

Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys
            260                 265                 270

Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg
        275                 280                 285

Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys
    290                 295                 300

Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe
305                 310                 315                 320

Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn
                325                 330                 335

Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly
            340                 345                 350

Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly
        355                 360                 365

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    370                 375                 380

Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro Ser Leu
```

385 390 395 400

Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr
405 410 415

Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro
420 425 430

Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro
435 440 445

Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala
450 455 460

Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys
465 470 475 480

Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu
485 490 495

Thr Val Leu His His His His His His
500 505

<210> 67
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 67
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1 5 10 15

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

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

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val

```
    50                  55                  60

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

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

Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr
            100                 105                 110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
        115                 120                 125

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu
    130                 135                 140

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp
145                 150                 155                 160

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser
                165                 170                 175

Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe
            180                 185                 190

Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn
        195                 200                 205

Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly
    210                 215                 220

Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly
225                 230                 235                 240

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
                245                 250                 255

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala
            260                 265                 270
```

```
Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala
        275                 280                 285

Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn
    290                 295                 300

Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile
305                 310                 315                 320

Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu
                325                 330                 335

Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe
            340                 345                 350

Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu
        355                 360                 365

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    370                 375                 380

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

Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala
                405                 410                 415

Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln
            420                 425                 430

Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr
        435                 440                 445

Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr
    450                 455                 460

Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu
465                 470                 475                 480

Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
```

485 490 495

Leu His His His His His His
500

<210> 68
<211> 512
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 68
Gln Val Gln Ile Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Leu Thr Tyr Ser Ile Val
20 25 30

Ala Val Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Met Val
35 40 45

Ala Asp Ile Ser Pro Val Gly Asn Thr Asn Tyr Ala Asp Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys His
85 90 95

Ile Val Arg Gly Trp Leu Asp Glu Arg Pro Gly Pro Gly Pro Ile Val
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
130 135 140

Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe

```
145                 150                 155                 160

Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys
                165                 170                 175

Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu
            180                 185                 190

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
        195                 200                 205

Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr
    210                 215                 220

Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln
225                 230                 235                 240

Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
                245                 250                 255

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
            260                 265                 270

Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys
        275                 280                 285

Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
    290                 295                 300

Val Ala Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala
305                 310                 315                 320

Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn
                325                 330                 335

Thr Ala Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val
            340                 345                 350

Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr
        355                 360                 365
```

```
Trp Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
    370                 375                 380

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val
385                 390                 395                 400

Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr
                405                 410                 415

Leu Thr Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro
            420                 425                 430

Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly
        435                 440                 445

Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser
    450                 455                 460

Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu
465                 470                 475                 480

Asp Glu Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val
                485                 490                 495

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu His His His His His His
            500                 505                 510
```

<210> 69
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 69

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

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

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

Ala Ser His Thr Ser Thr Gly Tyr Val Tyr Tyr Arg Asp Ser Val Lys
    50                  55                  60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Lys
                85                  90                  95

Ala Asn Arg Gly Ser Tyr Glu Tyr Trp Gly Gln Gly Thr Gln Val Thr
            100                 105                 110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
        115                 120                 125

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu
    130                 135                 140

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp
145                 150                 155                 160

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser
                165                 170                 175

Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe
            180                 185                 190

Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn
        195                 200                 205

Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly
    210                 215                 220

Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly
225                 230                 235                 240

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
```

```
                245                 250                 255

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala
            260                 265                 270

Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala
        275                 280                 285

Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn
    290                 295                 300

Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile
305                 310                 315                 320

Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu
                325                 330                 335

Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe
            340                 345                 350

Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu
        355                 360                 365

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    370                 375                 380

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

Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala
                405                 410                 415

Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln
            420                 425                 430

Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr
        435                 440                 445

Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr
    450                 455                 460
```

Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu
465 470 475 480

Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
485 490 495

Leu His His His His His His
500

<210> 70
<211> 502
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 70
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Thr Thr Ser Ser Ile Asn Ser
20 25 30

Met Ser Trp Tyr Arg Gln Ala Gln Gly Lys Gln Arg Glu Pro Val Ala
35 40 45

Val Ile Thr Asp Arg Gly Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
50 55 60

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
85 90 95

Ile Ala Asp Trp Arg Gly Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
100 105 110

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val
115 120 125

```
Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser
    130                 135                 140

Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val
145                 150                 155                 160

Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly
                165                 170                 175

Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
            180                 185                 190

Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser
        195                 200                 205

Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser
    210                 215                 220

Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
225                 230                 235                 240

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
                245                 250                 255

Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser
            260                 265                 270

Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
        275                 280                 285

Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn Asn
    290                 295                 300

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
305                 310                 315                 320

Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu Lys
                325                 330                 335

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly
```

```
            340                 345                 350

Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu Val
        355                 360                 365

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    370                 375                 380

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

Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala Val
                405                 410                 415

Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln Ala
            420                 425                 430

Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro
        435                 440                 445

Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu
    450                 455                 460

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

Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
                485                 490                 495

His His His His His His
            500
```

<210> 71
<211> 508
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 71

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
```

```
1               5                   10                  15

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

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Gln Phe Val
        35                  40                  45

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

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

Leu Gln Met Asn Asn Leu Arg Pro Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Asn Val Arg Arg Arg Gly Trp Gly Arg Thr Leu Glu Tyr Trp Gly Gln
            100                 105                 110

Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

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

Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser
145                 150                 155                 160

Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
                165                 170                 175

Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser
            180                 185                 190

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu
        195                 200                 205

Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr
    210                 215                 220
```

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

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
                245                 250                 255

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys
            260                 265                 270

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn
        275                 280                 285

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile
    290                 295                 300

Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys
305                 310                 315                 320

Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu
                325                 330                 335

Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val
            340                 345                 350

Arg His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp
        355                 360                 365

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

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu
385                 390                 395                 400

Pro Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly
                405                 410                 415

Ser Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln
            420                 425                 430

Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe
```

435 440 445

Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly
450 455 460

Lys Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu
465 470 475 480

Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly
485 490 495

Thr Lys Leu Thr Val Leu His His His His His His
500 505

<210> 72
<211> 505
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 72
Gln Val Gln Leu Gly Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Phe Ser Pro Asn
20 25 30

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

Ala Ser Ile Asn Ser Ser Gly Ser Thr Asn Tyr Gly Asp Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Tyr Ser Asp Phe Arg Arg Gly Thr Gln Tyr Trp Gly Gln Gly Thr Gln

```
            100                 105                 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val
        115                 120                 125

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu
    130                 135                 140

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met
145                 150                 155                 160

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser
                165                 170                 175

Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly
            180                 185                 190

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
        195                 200                 205

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
    210                 215                 220

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser
225                 230                 235                 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu
                245                 250                 255

Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys
            260                 265                 270

Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg
        275                 280                 285

Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys
    290                 295                 300

Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe
305                 310                 315                 320
```

```
Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn
                325                 330                 335

Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly
            340                 345                 350

Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly
        355                 360                 365

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    370                 375                 380

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

Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr
                405                 410                 415

Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro
            420                 425                 430

Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro
        435                 440                 445

Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala
    450                 455                 460

Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys
465                 470                 475                 480

Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu
                485                 490                 495

Thr Val Leu His His His His His His
            500                 505
```

<210> 73
<211> 507
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 73
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Pro Ser Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ala Thr Ser Ala Ile Thr
20 25 30

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

Ala Arg Ile Ser Val Arg Glu Asp Lys Glu Asp Tyr Glu Asp Ser Val
50 55 60

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

Leu Gln Met Asn Asn Leu Gln Pro His Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Gly Ala Gln Arg Trp Gly Arg Gly Pro Gly Thr Thr Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
115 120 125

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
130 135 140

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
145 150 155 160

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
165 170 175

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr

```
        195                 200                 205

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
    210                 215                 220

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
                245                 250                 255

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
            260                 265                 270

Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp
        275                 280                 285

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg
    290                 295                 300

Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp
305                 310                 315                 320

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
                325                 330                 335

Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg
            340                 345                 350

His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly
        355                 360                 365

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

Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro
385                 390                 395                 400

Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser
                405                 410                 415
```

Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln
420 425 430

Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu
435 440 445

Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys
450 455 460

Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr
465 470 475 480

Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr
485 490 495

Lys Leu Thr Val Leu His His His His His His
500 505

<210> 74
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 74
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Ser Gly Ser Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
50 55 60

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

```
Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
                85                  90                  95

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

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        115                 120                 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
    130                 135                 140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser
145                 150                 155                 160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
                165                 170                 175

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195                 200                 205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
    210                 215                 220

Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
225                 230                 235                 240

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
                245                 250                 255

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270

Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln
        275                 280                 285

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
```

```
    290                 295                 300

Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr
305                 310                 315                 320

Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335

Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn
            340                 345                 350

Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380

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

Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly
                405                 410                 415

Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
            420                 425                 430

Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly
        435                 440                 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
    450                 455                 460

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val
465                 470                 475                 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
                485                 490                 495

Val Leu His His His His His His
            500
```

<210> 75
<211> 506
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 75
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

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

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

Ala Trp Ile Asn Asn Ser Gly Val Gly Asn Thr Ala Glu Ser Val Lys
50 55 60

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

Gln Met Asn Arg Leu Thr Pro Glu Asp Thr Asp Val Tyr Tyr Cys Arg
85 90 95

Phe Tyr Arg Arg Phe Gly Ile Asn Lys Asn Tyr Trp Gly Gln Gly Thr
100 105 110

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
115 120 125

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser
130 135 140

Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly
145 150 155 160

Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
165 170 175

```
Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys
            180                 185                 190

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu
        195                 200                 205

Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr
    210                 215                 220

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

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val
                245                 250                 255

Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser
            260                 265                 270

Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val
        275                 280                 285

Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser
    290                 295                 300

Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg
305                 310                 315                 320

Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met
                325                 330                 335

Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His
            340                 345                 350

Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln
        355                 360                 365

Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
    370                 375                 380

Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro Ser
```

385 390 395 400

Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser
405 410 415

Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys
420 425 430

Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala
435 440 445

Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala
450 455 460

Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr
465 470 475 480

Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys
485 490 495

Leu Thr Val Leu His His His His His His
500 505

<210> 76
<211> 510
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 76
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Phe Gly Asn Lys
20 25 30

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

Ala Val Ile Ser Ser Asp Gly Gly Ser Thr Arg Tyr Ala Ala Leu Val

```
    50                  55                  60

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

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

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

Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
        115                 120                 125

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
    130                 135                 140

Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
145                 150                 155                 160

Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
                165                 170                 175

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala
            180                 185                 190

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr
        195                 200                 205

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val
    210                 215                 220

Tyr Tyr Cys Thr Ile Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr
225                 230                 235                 240

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu
                245                 250                 255

Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser
            260                 265                 270
```

```
Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala
        275                 280                 285

Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala
    290                 295                 300

Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser
305                 310                 315                 320

Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala
                325                 330                 335

Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr
            340                 345                 350

Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala
        355                 360                 365

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly
    370                 375                 380

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr
385                 390                 395                 400

Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr
                405                 410                 415

Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp
            420                 425                 430

Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr
        435                 440                 445

Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu
    450                 455                 460

Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu
465                 470                 475                 480

Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly
```

485 490 495

Gly Gly Thr Lys Leu Thr Val Leu His His His His His His
500 505 510

<210> 77
<211> 507
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 77
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
20 25 30

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

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

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

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

Thr Tyr Ile Pro Leu Arg Gly Thr Leu His Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
115 120 125

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
130 135 140

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe

```
145                 150                 155                 160

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                165                 170                 175

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
            180                 185                 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
        195                 200                 205

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
    210                 215                 220

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
                245                 250                 255

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
            260                 265                 270

Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp
        275                 280                 285

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg
    290                 295                 300

Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp
305                 310                 315                 320

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
                325                 330                 335

Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg
            340                 345                 350

His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly
        355                 360                 365
```

```
Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
    370                 375                 380

Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro
385                 390                 395                 400

Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser
                405                 410                 415

Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln
            420                 425                 430

Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu
        435                 440                 445

Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys
    450                 455                 460

Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr
465                 470                 475                 480

Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr
                485                 490                 495

Lys Leu Thr Val Leu His His His His His His
            500                 505
```

<210> 78
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 78

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

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

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

Ala Thr Ile Ser Asn Arg Gly Thr Ser Asn Tyr Ala Asn Ser Val Lys
    50                  55                  60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
                85                  90                  95

Ala Arg Lys Trp Gly Arg Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr
            100                 105                 110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
        115                 120                 125

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu
    130                 135                 140

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp
145                 150                 155                 160

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser
                165                 170                 175

Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe
            180                 185                 190

Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn
        195                 200                 205

Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly
    210                 215                 220

Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly
225                 230                 235                 240

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
```

```
                245                 250                 255

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala
            260                 265                 270

Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala
        275                 280                 285

Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn
    290                 295                 300

Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile
305                 310                 315                 320

Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu
                325                 330                 335

Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe
            340                 345                 350

Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu
        355                 360                 365

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    370                 375                 380

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

Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala
                405                 410                 415

Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln
            420                 425                 430

Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr
        435                 440                 445

Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr
    450                 455                 460
```

```
Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu
465                 470                 475                 480


Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
                485                 490                 495


Leu His His His His His His
            500


<210> 79
<211> 507
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 79
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Arg Gly
1               5                   10                  15


Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Arg Thr Ile Gly Ile Asn
            20                  25                  30


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


Ala Thr Ile Thr Lys Gly Gly Thr Thr Asp Tyr Ala Asp Ser Val Asp
    50                  55                  60


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


Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
                85                  90                  95


Thr Lys Arg Arg Glu Trp Ala Lys Asp Phe Glu Tyr Trp Gly Gln Gly
            100                 105                 110


Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
        115                 120                 125
```

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
    130                 135                 140

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
145                 150                 155                 160

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                165                 170                 175

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
            180                 185                 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
        195                 200                 205

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
    210                 215                 220

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
                245                 250                 255

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
            260                 265                 270

Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp
        275                 280                 285

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg
    290                 295                 300

Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp
305                 310                 315                 320

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
                325                 330                 335

Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg
```

```
            340                 345                 350

His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly
        355                 360                 365

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

Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro
385                 390                 395                 400

Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser
                405                 410                 415

Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln
            420                 425                 430

Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu
        435                 440                 445

Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys
    450                 455                 460

Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr
465                 470                 475                 480

Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr
                485                 490                 495

Lys Leu Thr Val Leu His His His His His His
            500                 505


<210> 80
<211> 502
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 80
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
```

```
1               5                   10                  15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Ala Ile Gly Ser Ile Asn Ser
            20                  25                  30

Met Ser Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Pro Val Ala
        35                  40                  45

Val Ile Thr Asp Arg Gly Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
    50                  55                  60

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
                85                  90                  95

Ile Ala Asp Trp Arg Gly Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
            100                 105                 110

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val
        115                 120                 125

Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser
    130                 135                 140

Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val
145                 150                 155                 160

Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly
                165                 170                 175

Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
            180                 185                 190

Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser
        195                 200                 205

Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser
    210                 215                 220
```

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


Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
                245                 250                 255


Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser
            260                 265                 270


Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
        275                 280                 285


Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn Asn
    290                 295                 300


Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
305                 310                 315                 320


Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu Lys
                325                 330                 335


Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly
            340                 345                 350


Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu Val
        355                 360                 365


Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    370                 375                 380


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


Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala Val
                405                 410                 415


Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln Ala
            420                 425                 430


Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro
```

```
        435                 440                 445

Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu
    450                 455                 460

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

Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
                485                 490                 495

His His His His His His
            500
```

<210> 81
<211> 507
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 81

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
            20                  25                  30

Thr Met Tyr Trp Phe Arg Gln Ala Pro Gly Glu Glu Arg Glu Leu Val
        35                  40                  45

Ala Thr Ile Asn Arg Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys
    50                  55                  60

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

Gln Met Asn Arg Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
                85                  90                  95

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
```

```
            100                 105                 110

Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
        115                 120                 125

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
    130                 135                 140

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
145                 150                 155                 160

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                165                 170                 175

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
            180                 185                 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
        195                 200                 205

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
    210                 215                 220

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
                245                 250                 255

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
            260                 265                 270

Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp
        275                 280                 285

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg
    290                 295                 300

Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp
305                 310                 315                 320
```

```
Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
                325                 330                 335

Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg
            340                 345                 350

His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly
        355                 360                 365

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

Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro
385                 390                 395                 400

Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser
                405                 410                 415

Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln
            420                 425                 430

Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu
        435                 440                 445

Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys
    450                 455                 460

Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr
465                 470                 475                 480

Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr
                485                 490                 495

Lys Leu Thr Val Leu His His His His His His
            500                 505
```

<210> 82
<211> 502
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 82
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Thr Ser Thr Thr Phe Ser Ile Asn Ser
20 25 30

Met Ser Trp Tyr Arg Gln Ala Pro Gly Asn Gln Arg Glu Pro Val Ala
35 40 45

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

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

Met Asp Ser Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
85 90 95

Ile Ala Asp Trp Arg Gly Tyr Trp Gly Gln Gly Thr Gln Val Thr Val
100 105 110

Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val
115 120 125

Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser
130 135 140

Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val
145 150 155 160

Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly
165 170 175

Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
180 185 190

Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser

```
        195                 200                 205

Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly Ser
    210                 215                 220

Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
225                 230                 235                 240

Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
                245                 250                 255

Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser
            260                 265                 270

Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
        275                 280                 285

Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn Asn
    290                 295                 300

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
305                 310                 315                 320

Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu Lys
                325                 330                 335

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly
            340                 345                 350

Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu Val
        355                 360                 365

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
    370                 375                 380

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

Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala Val
                405                 410                 415
```

Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln Ala
420 425 430

Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro
435 440 445

Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu
450 455 460

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

Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
485 490 495

His His His His His His
500

<210> 83
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 83
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
50 55 60

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

```
Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
                85                  90                  95

Asp Thr Ile Gly Thr Ala Arg Asp Tyr Trp Gly Gln Gly Thr Gln Val
            100                 105                 110

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        115                 120                 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
    130                 135                 140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser
145                 150                 155                 160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
                165                 170                 175

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195                 200                 205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
    210                 215                 220

Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
225                 230                 235                 240

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
                245                 250                 255

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270

Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln
        275                 280                 285

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
```

```
    290                 295                 300

Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr
305                 310                 315                 320

Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335

Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn
            340                 345                 350

Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380

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

Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly
                405                 410                 415

Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
            420                 425                 430

Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly
        435                 440                 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
    450                 455                 460

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val
465                 470                 475                 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
                485                 490                 495

Val Leu His His His His His His
            500
```

<210> 84
<211> 505
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 84
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

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

Thr Met Tyr Trp His Arg Gln Ala Pro Gly Asn Glu Arg Glu Leu Val
35 40 45

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

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Val Arg Thr Thr Ser Tyr Pro Val Asp Phe Trp Gly Gln Gly Thr Gln
100 105 110

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val
115 120 125

Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu
130 135 140

Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe Gly Met
145 150 155 160

Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser
165 170 175

```
Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly
            180                 185                 190

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln
        195                 200                 205

Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
    210                 215                 220

Gly Gly Ser Leu Ser Arg Ser Ser Gln Gly Thr Leu Val Thr Val Ser
225                 230                 235                 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu
                245                 250                 255

Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys
            260                 265                 270

Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg
        275                 280                 285

Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys
    290                 295                 300

Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe
305                 310                 315                 320

Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn
                325                 330                 335

Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly
            340                 345                 350

Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly
        355                 360                 365

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
    370                 375                 380

Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro Ser Leu
```

385 390 395 400

Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr
405 410 415

Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro
420 425 430

Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro
435 440 445

Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala
450 455 460

Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys
465 470 475 480

Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu
485 490 495

Thr Val Leu His His His His His His
500 505

<210> 85
<211> 507
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 85
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Ser Ser Ile Asn
20 25 30

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

Ala Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys

```
    50                  55                  60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn
                85                  90                  95

Thr Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe Trp Gly Gln Gly
            100                 105                 110

Thr Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
        115                 120                 125

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
    130                 135                 140

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Phe
145                 150                 155                 160

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                165                 170                 175

Ser Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val
            180                 185                 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr
        195                 200                 205

Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
    210                 215                 220

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

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
                245                 250                 255

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu
            260                 265                 270
```

```
Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Met Asn Trp
        275                 280                 285

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg
    290                 295                 300

Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp
305                 310                 315                 320

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
                325                 330                 335

Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg
            340                 345                 350

His Gly Asn Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly
        355                 360                 365

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

Gly Gly Ser Gly Gly Gly Gly Ser Gln Thr Val Val Thr Gln Glu Pro
385                 390                 395                 400

Ser Leu Thr Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser
                405                 410                 415

Ser Thr Gly Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln
            420                 425                 430

Lys Pro Gly Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu
        435                 440                 445

Ala Pro Gly Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys
    450                 455                 460

Ala Ala Leu Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr
465                 470                 475                 480

Tyr Cys Val Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr
```

485 490 495

Lys Leu Thr Val Leu His His His His His His
500 505

<210> 86
<211> 499
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 86
Gln 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 Gly Asp Trp Ser Ala Asn
20 25 30

Phe Met Tyr Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val
35 40 45

Ala Arg Ile Ser Gly Arg Gly Val Val Asp Tyr Val Glu Ser Val Lys
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Val Ala Ser Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser Gly
100 105 110

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
115 120 125

Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu Ser Cys Ala Ala
130 135 140

Ser Gly Phe Thr Phe Ser Ser Phe Gly Met Ser Trp Val Arg Gln Ala

```
145                 150                 155                 160

Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Ser
                165                 170                 175

Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
            180                 185                 190

Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Pro
        195                 200                 205

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

Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser
225                 230                 235                 240

Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
                245                 250                 255

Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr
            260                 265                 270

Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly
        275                 280                 285

Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr
    290                 295                 300

Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp
305                 310                 315                 320

Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp
                325                 330                 335

Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr
            340                 345                 350

Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
        355                 360                 365
```

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
370 375 380

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

Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala Val Thr Ser Gly
405 410 415

Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
420 425 430

Leu Ile Gly Gly Thr Lys Phe Leu Ala Pro Gly Thr Pro Ala Arg Phe
435 440 445

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Val
450 455 460

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

Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu His His His
485 490 495

His His His

<210> 87
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MISC_FEATURE
<222> (1)..(20)
<223> This sequence may encompass 1-10 "Gly Ser" repeating units

<400> 87

Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser Gly Ser
1 5 10 15

Gly Ser Gly Ser
20

<210> 88
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(30)
<223> This sequence may encompass 1-10 "Gly Gly Ser" repeating units

<400> 88
Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly
1 5 10 15

Gly Ser Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Gly Ser
20 25 30

<210> 89
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(40)
<223> This sequence may encompass 1-10 "Gly Gly Gly Ser" repeating units

<400> 89
Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser
            20   25   30

Gly Gly Gly Ser Gly Gly Gly Ser
        35   40

<210> 90
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(40)
<223> This sequence may encompass 1-10 "Gly Gly Ser Gly"
      repeating units

<400> 90
Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly
            20   25   30

Gly Gly Ser Gly Gly Gly Ser Gly
        35   40

<210> 91
<211> 50
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(50)
<223> This sequence may encompass 1-10 "Gly Gly Ser Gly Gly"
      repeating units

<400> 91

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
1 5 10 15

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
20 25 30

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
35 40 45

Gly Gly
50

<210> 92
<211> 50
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(50)
<223> This sequence may encompass 1-10 "Gly Gly Gly Gly Ser" repeating units

<400> 92
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
35 40 45

Gly Ser
50

<210> 93
<211> 50
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(50)
<223> This sequence may encompass 1-10 "Gly Gly Gly Gly Gly"
repeating units

<400> 93
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
1 5 10 15

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
20 25 30

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
35 40 45

Gly Gly
50

<210> 94
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<220>
<221> MISC_FEATURE
<222> (1)..(30)
<223> This sequence may encompass 1-10 "Gly Gly Gly"
repeating units

<400> 94
Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
1 5 10 15

Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
20 25 30

<210> 95

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 95
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 96
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 96
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 97
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown:
sortase recognition domain

<400> 97
Leu Pro Glu Thr Gly
1 5

<210> 98
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 98
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1   5   10   15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
    50   55   60

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

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

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

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        115   120   125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
    130   135   140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Lys Phe Gly Met Ser
145   150   155   160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
                165   170   175

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195   200   205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly

```
    210                 215                 220

Gly Ser Leu Ser Val Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
225                 230                 235                 240

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
                245                 250                 255

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270

Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Ile Asn Trp Val Arg Gln
        275                 280                 285

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
    290                 295                 300

Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Gln Val Lys Asp Arg Phe Thr
305                 310                 315                 320

Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335

Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Ala Asn
            340                 345                 350

Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380

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

Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Ala Ser Ser Thr Gly
                405                 410                 415

Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
            420                 425                 430
```

```
Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Val Pro Gly
        435                 440                 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
    450                 455                 460

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Thr
465                 470                 475                 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
                485                 490                 495

Val Leu His His His His His His
            500
```

<210> 99
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 99

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Pro Val Asn Arg Tyr
            20                  25                  30

Ser Met Arg Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Trp Val
        35                  40                  45

Ala Gly Met Ser Ser Ala Gly Asp Arg Ser Ser Tyr Glu Asp Ser Val
    50                  55                  60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
```

```
Asn Val Asn Val Gly Phe Glu Tyr Trp Gly Gln Gly Thr Gln Val Thr
            100                 105                 110

Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu
        115                 120                 125

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg Leu
    130                 135                 140

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Lys Phe Gly Met Ser Trp
145                 150                 155                 160

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile Ser
                165                 170                 175

Gly Ser Gly Arg Asp Thr Leu Tyr Ala Asp Ser Val Lys Gly Arg Phe
            180                 185                 190

Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn
        195                 200                 205

Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly Gly
    210                 215                 220

Ser Leu Ser Val Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser Gly
225                 230                 235                 240

Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly
                245                 250                 255

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala Ala
            260                 265                 270

Ser Gly Phe Thr Phe Asn Lys Tyr Ala Ile Asn Trp Val Arg Gln Ala
        275                 280                 285

Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn
    290                 295                 300

Asn Tyr Ala Thr Tyr Tyr Ala Asp Gln Val Lys Asp Arg Phe Thr Ile
```

```
305                 310                 315                 320

Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn Leu
                325                 330                 335

Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Ala Asn Phe
            340                 345                 350

Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr Leu
        355                 360                 365

Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    370                 375                 380

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

Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Ala Ser Ser Thr Gly Ala
                405                 410                 415

Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly Gln
            420                 425                 430

Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Val Pro Gly Thr
        435                 440                 445

Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr
    450                 455                 460

Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Thr Leu
465                 470                 475                 480

Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
                485                 490                 495

Leu His His His His His His
            500
```

<210> 100
<211> 504
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 100
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
50 55 60

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

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

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

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
115 120 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
130 135 140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Lys Phe Gly Met Ser
145 150 155 160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
165 170 175

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

```
Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195                 200                 205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
    210                 215                 220

Gly Ser Leu Ser Val Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
225                 230                 235                 240

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
                245                 250                 255

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270

Ala Ser Gly Asn Thr Phe Asn Lys Tyr Ala Met Asn Trp Val Arg Gln
        275                 280                 285

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
    290                 295                 300

Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr
305                 310                 315                 320

Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335

Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn
            340                 345                 350

Phe Gly Asp Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380

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

Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly
```

405 410 415

Ala Val Thr His Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
420 425 430

Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Val Leu Ala Pro Gly
435 440 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
450 455 460

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Val
465 470 475 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
485 490 495

Val Leu His His His His His His
500

<210> 101
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 101
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
50 55 60

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln

```
65                  70                  75                  80

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

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

Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln
        115                 120                 125

Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn Ser Leu Arg
    130                 135                 140

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Lys Phe Gly Met Ser
145                 150                 155                 160

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ser Ile
                165                 170                 175

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

Phe Thr Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met
        195                 200                 205

Asn Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile Gly
    210                 215                 220

Gly Ser Leu Ser Val Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser
225                 230                 235                 240

Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
                245                 250                 255

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu Ser Cys Ala
            260                 265                 270

Ala Ser Gly Phe Thr Phe Asn Lys Tyr Ala Ile Asn Trp Val Arg Gln
        275                 280                 285
```

```
Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr
    290                 295                 300

Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Gln Val Lys Asp Arg Phe Thr
305                 310                 315                 320

Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln Met Asn Asn
                325                 330                 335

Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Ala Asn
            340                 345                 350

Phe Gly Asn Ser Tyr Ile Ser Tyr Trp Ala Tyr Trp Gly Gln Gly Thr
        355                 360                 365

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    370                 375                 380

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

Val Ser Pro Gly Gly Thr Val Thr Leu Thr Cys Ala Ser Ser Thr Gly
                405                 410                 415

Ala Val Thr Ser Gly Asn Tyr Pro Asn Trp Val Gln Gln Lys Pro Gly
            420                 425                 430

Gln Ala Pro Arg Gly Leu Ile Gly Gly Thr Lys Phe Leu Val Pro Gly
        435                 440                 445

Thr Pro Ala Arg Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu
    450                 455                 460

Thr Leu Ser Gly Val Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Thr
465                 470                 475                 480

Leu Trp Tyr Ser Asn Arg Trp Val Phe Gly Gly Gly Thr Lys Leu Thr
                485                 490                 495

Val Leu His His His His His His
```

500

<210> 102
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 102
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1 5 10 15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
50 55 60

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

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

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

Thr Val Ser Ser
115

<210> 103
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 103
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1   5   10   15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
    50   55   60

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

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

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

Thr Val Ser Ser
        115

<210> 104
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 104
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1   5   10   15

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

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

Ala Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
    50   55   60

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

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

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

Thr Val Ser Ser
        115

<210> 105
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 105
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1   5   10   15

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

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

Ser Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly
    50   55   60

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

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

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

Thr Val Ser Ser
115

<210> 106
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 106
Gly Arg Thr Phe Ser Val Arg Gly Met Ala
1 5 10

<210> 107
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 107
Gly Ser Ile Pro Ser Ile Glu Gln Met Gly
1 5 10

<210> 108
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 108
Gly Thr Thr Tyr Thr Phe Asp Leu Met Ser
1 5 10

<210> 109
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 109
Gly Ser Thr Ser Asn Ile Asn Asn Met Arg
1 5 10

<210> 110
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 110
Gly Ser Thr Phe Gly Ile Asn Ala Met Gly
1 5 10

<210> 111
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 111
Ile Ser Ala Phe Arg Leu Met Ser Val Arg
1 5 10

<210> 112
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 112
Gly Arg Pro Phe Ser Ile Asn Thr Met Gly
1 5 10

<210> 113

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 113
Gly Ser Asp Phe Thr Glu Asp Ala Met Ala
1 5 10

<210> 114
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<220>
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<400> 114
Gly Ser Asp Phe Thr Glu Asp Ala Met Ala
1 5 10

<210> 115
<211> 10
<212> PRT
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<220>
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peptide

<400> 115
Gly Phe Thr Phe Ser Ser Phe Gly Met Ser
1 5 10

<210> 116
<211> 10
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<220>
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peptide

<400> 116
Gly Leu Thr Tyr Ser Ile Val Ala Val Gly
1 5 10

<210> 117
<211> 10
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<220>
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peptide

<400> 117
Gly Leu Thr Phe Gly Val Tyr Gly Met Glu
1 5 10

<210> 118
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<212> PRT
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<220>
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peptide

<400> 118
Thr Thr Ser Ser Ile Asn Ser Met Ser
1 5

<210> 119
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<220>
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peptide

<400> 119
Gly Arg Thr Leu Ser Arg Tyr Ala Met Gly
1 5 10

<210> 120
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<220>
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peptide

<400> 120
Gly Ser Ile Phe Ser Pro Asn Ala Met Ile

1 5 10

<210> 121
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<220>
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<400> 121
Gly Ala Thr Ser Ala Ile Thr Asn Leu Gly
1 5 10

<210> 122
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<220>
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<400> 122
Gly Ser Thr Phe Arg Ile Arg Val Met Arg
1 5 10

<210> 123
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<220>
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<400> 123
Gly Asp Thr Ser Lys Phe Lys Ala Val Gly
1 5 10

<210> 124
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<220>
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<400> 124
Gly Ser Thr Phe Gly Asn Lys Pro Met Gly
1 5 10

<210> 125
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<220>
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<400> 125
Gly Ser Thr Ser Ser Ile Asn Thr Met Tyr
1 5 10

<210> 126
<211> 10
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<220>
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<400> 126
Gly Arg Thr Asp Arg Ile Thr Thr Met Gly
1 5 10

<210> 127
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<220>
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<400> 127
Gly Arg Thr Ile Gly Ile Asn Asp Met Ala
1 5 10

<210> 128
<211> 9
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<220>
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peptide

<400> 128
Ala Ile Gly Ser Ile Asn Ser Met Ser
1 5

<210> 129
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<400> 129
Gly Ser Thr Ser Ser Ile Asn Thr Met Tyr
1 5 10

<210> 130
<211> 9
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<400> 130
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1 5

<210> 131
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<400> 131
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1 5 10

<210> 132
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<220>
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peptide

<400> 132
Gly Arg Thr Ser Thr Ile Asp Thr Met Tyr
1 5 10

<210> 133
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peptide

<400> 133
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1 5 10

<210> 134
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peptide

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1 5 10

<210> 135
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peptide

<400> 135
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1 5 10

<210> 136
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peptide

<400> 136
Gly Ser Thr Ser Ser Ile Asn Thr Met Tyr
1 5 10

<210> 137
<211> 10
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peptide

<400> 137
Gly Ser Thr Ser Ser Ile Asn Thr Met Tyr
1 5 10

<210> 138
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peptide

<400> 138
Gly Ser Thr Ser Ser Ile Asn Thr Met Tyr
1 5 10

<210> 139
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peptide

<400> 139
Gly Ser Thr Phe Ser Ile Arg Ala Met Arg
1 5 10

<210> 140

<211> 10
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peptide

<400> 140
Gly Ser Thr Phe Ser Ile Arg Ala Met Arg
1 5 10

<210> 141
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<220>
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peptide

<400> 141
Gly Ser Thr Phe Ser Ile Arg Ala Met Arg
1 5 10

<210> 142
<211> 10
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<220>
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peptide

<400> 142
Gly Arg Thr Ser Thr Ile Asp Thr Met Tyr
1 5 10

<210> 143
<211> 10
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<220>
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peptide

<400> 143
Gly Arg Thr Ser Thr Ile Asp Thr Met Tyr
1 5 10

<210> 144
<211> 10
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<220>
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peptide

<400> 144
Gly Arg Thr Ser Thr Ile Asp Thr Met Tyr
1 5 10

<210> 145
<211> 19
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<213> Artificial Sequence

<220>
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peptide

<400> 145
Thr Met Asn Pro Asp Gly Phe Pro Asn Tyr Ala Asp Ala Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 146
<211> 19
<212> PRT
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<220>
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peptide

<400> 146
Ala Leu Thr Ser Gly Gly Arg Ala Asn Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 147
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 147
Ser Ile Ser Ser Asp Gly Arg Thr Ser Tyr Ala Asp Ser Val Arg Gly
1 5 10 15

Arg Phe Thr

<210> 148
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 148
Val Ile Thr Arg Gly Gly Tyr Ala Ile Tyr Leu Asp Ala Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 149
<211> 19
<212> PRT
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<220>
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peptide

<400> 149
Val Ile Ser Arg Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 150
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 150
Thr Ile Asp Gln Leu Gly Arg Thr Asn Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Ala

<210> 151
<211> 19
<212> PRT
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<220>
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peptide

<400> 151
Ser Ile Ser Ser Ser Gly Asp Phe Thr Tyr Thr Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 152
<211> 20
<212> PRT
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<220>
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peptide

<400> 152
Phe Val Ser Lys Asp Gly Lys Arg Ile Leu Tyr Leu Asp Ser Val Arg
1 5 10 15

Gly Arg Phe Thr
20

<210> 153
<211> 20
<212> PRT

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peptide

<400> 153
Phe Val Ser Lys Asp Gly Lys Arg Ile Leu Tyr Leu Asp Ser Val Arg
1 5 10 15

Gly Arg Phe Thr
20

<210> 154
<211> 20
<212> PRT
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<220>
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peptide

<400> 154
Ser Ile Ser Gly Ser Gly Ser Asp Thr Leu Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly Arg Phe Thr
20

<210> 155
<211> 19
<212> PRT
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<220>
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peptide

<400> 155
Asp Ile Ser Pro Val Gly Asn Thr Asn Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 156
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 156
Ser His Thr Ser Thr Gly Tyr Val Tyr Tyr Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 157
<211> 19
<212> PRT
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<220>
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peptide

<400> 157
Val Ile Thr Asp Arg Gly Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 158
<211> 20
<212> PRT
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<220>
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peptide

<400> 158
Ala Ile Ser Arg Ser Gly Gly Thr Thr Arg Tyr Ser Asp Ser Val Lys
1 5 10 15

Gly Arg Phe Thr
20

<210> 159
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 159
Ser Ile Asn Ser Ser Gly Ser Thr Asn Tyr Gly Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 160
<211> 20
<212> PRT
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<220>
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peptide

<400> 160
Arg Ile Ser Val Arg Glu Asp Lys Glu Asp Tyr Glu Asp Ser Val Lys
1 5 10 15

Gly Arg Phe Thr
20

<210> 161
<211> 18
<212> PRT
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<220>
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peptide

<400> 161
Val Ile Ser Gly Ser Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg
1 5 10 15

Phe Thr

<210> 162
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 162
Trp Ile Asn Asn Ser Gly Val Gly Asn Thr Ala Glu Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 163
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 163
Val Ile Ser Ser Asp Gly Gly Ser Thr Arg Tyr Ala Ala Leu Val Lys
1 5 10 15

Gly Arg Phe Thr
20

<210> 164
<211> 19
<212> PRT
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<220>
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peptide

<400> 164
Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Ser

<210> 165
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 165
Thr Ile Ser Asn Arg Gly Thr Ser Asn Tyr Ala Asn Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 166
<211> 19
<212> PRT
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<220>
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peptide

<400> 166
Thr Ile Thr Lys Gly Gly Thr Thr Asp Tyr Ala Asp Ser Val Asp Gly
1 5 10 15

Arg Phe Thr

<210> 167
<211> 19
<212> PRT
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<220>
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peptide

<400> 167
Val Ile Thr Asp Arg Gly Ser Thr Ser Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 168
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 168
Thr Ile Asn Arg Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Ser

<210> 169
<211> 19
<212> PRT
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<220>
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peptide

<400> 169
Val Ile Thr Asn Arg Gly Thr Thr Ser Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 170
<211> 18
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<220>
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peptide

<400> 170
Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly Arg
1 5 10 15

Phe Thr

<210> 171
<211> 19
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<213> Artificial Sequence

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peptide

<400> 171
Tyr Val Thr Ser Arg Gly Thr Ser Asn Val Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 172
<211> 19
<212> PRT
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peptide

<400> 172
Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Ser

<210> 173
<211> 19
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<220>
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peptide

<400> 173
Arg Ile Ser Gly Arg Gly Val Val Asp Tyr Val Glu Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 174
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 174
Arg Ile Ser Gly Arg Gly Val Val Asp Tyr Val Glu Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 175
<211> 19
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<220>
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peptide

<400> 175
Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 176
<211> 19
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<220>
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peptide

<400> 176
Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 177
<211> 19
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<213> Artificial Sequence

<220>
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peptide

<400> 177
Phe Ile Ser Ser Gly Gly Ser Thr Asn Val Arg Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 178
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 178
Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly Arg
1 5 10 15

Phe Thr

<210> 179
<211> 18
<212> PRT
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<220>
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peptide

<400> 179
Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly Arg
1 5 10 15

Phe Thr

<210> 180
<211> 18
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 180
Val Ile Tyr Gly Ser Ser Thr Tyr Tyr Ala Asp Ala Val Lys Gly Arg
1 5 10 15

Phe Thr

<210> 181
<211> 19
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<220>
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peptide

<400> 181
Tyr Val Thr Ser Arg Gly Thr Ser Asn Val Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 182
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 182
Tyr Val Thr Ser Arg Gly Thr Ser Asn Val Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 183
<211> 19
<212> PRT

<213> Artificial Sequence

<220>
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peptide

<400> 183
Tyr Val Thr Ser Arg Gly Thr Ser Asn Val Ala Asp Ser Val Lys Gly
1 5 10 15

Arg Phe Thr

<210> 184
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<212> PRT
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<220>
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peptide

<400> 184
Gly Pro Tyr
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<210> 185
<211> 15
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 185
Gly Arg Phe Lys Gly Asp Tyr Ala Gln Arg Ser Gly Met Asp Tyr
1 5 10 15

<210> 186
<211> 8
<212> PRT
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<220>
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peptide

<400> 186
Gln Arg Ser Gly Val Arg Ala Phe

1 5

<210> 187
<211> 15
<212> PRT
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<220>
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<400> 187
Asp Arg Val Glu Gly Thr Ser Gly Gly Pro Gln Leu Arg Asp Tyr
1 5 10 15

<210> 188
<211> 8
<212> PRT
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<220>
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<400> 188
Arg Thr Tyr Thr Arg His Asp Tyr
1 5

<210> 189
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 189
Gly Gly Gly Pro Leu Gly Ser Arg Trp Leu Arg Gly Arg His
1 5 10

<210> 190
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 190
Arg Arg Thr Tyr Leu Pro Arg Arg Phe Gly Ser
1   5   10

<210> 191
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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      peptide

<400> 191
Ala Pro Gly Ala Ala Arg Asn Tyr
1   5

<210> 192
<211> 8
<212> PRT
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<220>
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<400> 192
Ala Pro Gly Ala Ala Arg Asn Val
1   5

<210> 193
<211> 8
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<220>
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      peptide

<400> 193
Gly Gly Ser Leu Ser Arg Ser Ser
1   5

<210> 194
<211> 16
<212> PRT
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<220>
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peptide

<400> 194
Val Arg Gly Trp Leu Asp Glu Arg Pro Gly Pro Gly Pro Ile Val Tyr
1 5 10 15

<210> 195
<211> 7
<212> PRT
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<220>
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peptide

<400> 195
Asn Arg Gly Ser Tyr Glu Tyr
1 5

<210> 196
<211> 7
<212> PRT
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<220>
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peptide

<400> 196
Ile Ala Asp Trp Arg Gly Tyr
1 5

<210> 197
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 197
Arg Arg Arg Gly Trp Gly Arg Thr Leu Glu Tyr
1 5 10

<210> 198
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 198
Ser Asp Phe Arg Arg Gly Thr Gln Tyr
1 5

<210> 199
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 199
Gln Arg Trp Gly Arg Gly Pro Gly Thr Thr
1 5 10

<210> 200
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 200
Asp Asp Ser Gly Ile Ala Arg Asp Tyr
1 5

<210> 201
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 201
Tyr Arg Arg Phe Gly Ile Asn Lys Asn Tyr
1 5 10

<210> 202
<211> 13
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<213> Artificial Sequence

<220>
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peptide

<400> 202
Leu Arg Thr Tyr Tyr Leu Asn Asp Pro Val Val Phe Ser
1 5 10

<210> 203
<211> 11
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<220>
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peptide

<400> 203
Tyr Ile Pro Leu Arg Gly Thr Leu His Asp Tyr
1 5 10

<210> 204
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 204
Arg Lys Trp Gly Arg Asn Tyr
1 5

<210> 205
<211> 11
<212> PRT
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<220>
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peptide

<400> 205
Lys Arg Arg Glu Trp Ala Lys Asp Phe Glu Tyr
1 5 10

<210> 206

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

<220>
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peptide

<400> 206
Ile Ala Asp Trp Arg Gly Tyr
1 5

<210> 207
<211> 11
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 207
Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe
1 5 10

<210> 208
<211> 7
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 208
Ile Ala Asp Trp Arg Gly Tyr
1 5

<210> 209
<211> 9
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<213> Artificial Sequence

<220>
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peptide

<400> 209
Asp Thr Ile Gly Thr Ala Arg Asp Tyr
1 5

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 210
Arg Thr Thr Ser Tyr Pro Val Asp Phe
1 5

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 211
Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe
1 5 10

<210> 212
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 212
Ala Ser Tyr
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<210> 213
<211> 3
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 213
Ala Ser Tyr

1

<210> 214
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 214
Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe
1 5 10

<210> 215
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 215
Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe
1 5 10

<210> 216
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 216
Tyr Ile Pro Tyr Gly Gly Thr Leu His Asp Phe
1 5 10

<210> 217
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 217
Asp Thr Ile Gly Thr Ala Arg Asp Tyr
1   5

<210> 218
<211> 9
<212> PRT
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<220>
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      peptide

<400> 218
Asp Thr Ile Gly Thr Ala Arg Asp Tyr
1   5

<210> 219
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 219
Asp Thr Ile Gly Thr Ala Arg Asp Tyr
1   5

<210> 220
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 220
Arg Thr Thr Ser Tyr Pro Val Asp Phe
1   5

<210> 221
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 221
Arg Thr Thr Ser Tyr Pro Val Asp Phe
1 5

<210> 222
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 222
Arg Thr Thr Ser Tyr Pro Val Asp Phe
1 5

<210> 223
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 223
Gln 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
20 25

<210> 224
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 224
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 225
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 225
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Phe Ser
20 25

<210> 226
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 226
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser
20 25

<210> 227
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 227
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 228
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 228
Gln Val Arg Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 229
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 229
Gln Val Arg Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 230
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 230
Gln Val Gln Pro Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Val Ser

20 25

<210> 231
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 231
Gln Val Gln Pro Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Val Ser
20 25

<210> 232
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 232
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Asn
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 233
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 233
Gln Val Gln Ile Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser

20 25

<210> 234
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 234
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Thr Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 235
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 235
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 236
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 236
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 237
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 237
Gln Val Gln Leu Gly Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 238
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 238
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Pro Ser Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 239
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 239
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 240
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 240
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Glu
1 5 10 15

Ser Arg Arg Leu Ser Cys Ala Val Ser
20 25

<210> 241
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 241
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 242
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 242
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 243
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 243
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser
20 25

<210> 244
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 244
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Arg Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser
20 25

<210> 245
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 245
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 246
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 246
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 247
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 247
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Thr Ser
20 25

<210> 248
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 248
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Thr Leu Ser Cys Ala Ala Ser

20 25

<210> 249
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 249
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser
20 25

<210> 250
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 250
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 251
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 251
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

20 25

<210> 252
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 252
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
20 25

<210> 253
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 253
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 254
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 254
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

20 25

<210> 255
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 255
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
20 25

<210> 256
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 256
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 257
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
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<400> 257
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser

20 25

<210> 258
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
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<400> 258
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser
20 25

<210> 259
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
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<400> 259
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Val Ala Ser
20 25

<210> 260
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
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<400> 260
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

20 25

<210> 261
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<212> PRT
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<220>
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<400> 261
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
20 25

<210> 262
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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 262
Trp Tyr Arg Gln Ala Gly Asn Asn Arg Ala Leu Val Ala
1 5 10

<210> 263
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 263
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 264
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 264
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Thr Val Val Ala
1 5 10

<210> 265
<211> 14
<212> PRT
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<220>
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peptide

<400> 265
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 266
<211> 14
<212> PRT
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<220>
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peptide

<400> 266
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 267
<211> 14
<212> PRT
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<220>
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peptide

<400> 267
Trp Tyr Arg Gln Asp Pro Ser Lys Gln Arg Glu Trp Val Ala
1 5 10

<210> 268
<211> 14
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<213> Artificial Sequence

<220>
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peptide

<400> 268
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 269
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 269
Trp Tyr Arg Gln Ala Ser Gly Lys Glu Arg Glu Ser Val Ala
1 5 10

<210> 270
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 270
Trp Tyr Arg Gln Ala Ser Gly Lys Glu Arg Glu Ser Val Ala
1 5 10

<210> 271
<211> 14
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<220>
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peptide

<400> 271
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 272

<211> 14
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 272
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Met Val Ala
1 5 10

<210> 273
<211> 14
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<220>
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peptide

<400> 273
Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Trp Val Ala
1 5 10

<210> 274
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 274
Trp Tyr Arg Gln Ala Gln Gly Lys Gln Arg Glu Pro Val Ala
1 5 10

<210> 275
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 275
Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Gln Phe Val Ala
1 5 10

<210> 276
<211> 14
<212> PRT
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<220>
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peptide

<400> 276
Trp His Arg Gln Ala Pro Gly Lys Gln Arg Glu Pro Val Ala
1 5 10

<210> 277
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<220>
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peptide

<400> 277
Trp Tyr Arg Arg Ala Pro Gly Gln Val Arg Glu Met Val Ala
1 5 10

<210> 278
<211> 14
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peptide

<400> 278
Trp Tyr Arg Gln Ala Pro Gly Thr Glu Arg Asp Leu Val Ala
1 5 10

<210> 279
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<220>
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peptide

<400> 279
Trp Tyr Arg Gln Ala Pro Gly Ala Gln Arg Glu Leu Leu Ala

1 5 10

<210> 280
<211> 14
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<220>
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<400> 280
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 281
<211> 14
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<220>
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<400> 281
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 282
<211> 14
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<213> Artificial Sequence

<220>
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<400> 282
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 283
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 283
Trp Tyr Arg Gln Ala Pro Gly Asn Gln Arg Glu Leu Val Ala
1   5   10

<210> 284
<211> 14
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<220>
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      peptide

<400> 284
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Pro Val Ala
1   5   10

<210> 285
<211> 14
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 285
Trp Phe Arg Gln Ala Pro Gly Glu Glu Arg Glu Leu Val Ala
1   5   10

<210> 286
<211> 14
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 286
Trp Tyr Arg Gln Ala Pro Gly Asn Gln Arg Glu Pro Val Ala
1   5   10

<210> 287
<211> 14
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 287
Trp Tyr Arg Gln Ala Pro Gly Thr Glu Arg Asp Leu Val Ala
1 5 10

<210> 288
<211> 14
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<220>
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<400> 288
Trp His Arg Gln Ala Pro Gly Asn Glu Arg Glu Leu Val Ala
1 5 10

<210> 289
<211> 14
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<220>
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<400> 289
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 290
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<400> 290
Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala
1 5 10

<210> 291
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<220>
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peptide

<400> 291
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 292
<211> 14
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<220>
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peptide

<400> 292
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 293
<211> 14
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peptide

<400> 293
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 294
<211> 14
<212> PRT
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<220>
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peptide

<400> 294
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 295
<211> 14
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 295
Trp Tyr Arg Gln Ala Pro Gly Thr Glu Arg Asp Leu Val Ala
1 5 10

<210> 296
<211> 14
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<220>
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peptide

<400> 296
Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 297
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<220>
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peptide

<400> 297
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 298
<211> 14
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<220>
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peptide

<400> 298
Trp His Arg Gln Ala Pro Gly Asn Glu Arg Glu Leu Val Ala
1 5 10

<210> 299

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

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 299
Trp His Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
1 5 10

<210> 300
<211> 14
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 300
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 301
<211> 29
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 301
Ile Ser Trp Asp Ile Ala Glu Asn Thr Val Tyr Leu Gln Met Asn Ser
1 5 10 15

Leu Asn Ser Glu Asp Thr Thr Val Tyr Tyr Cys Asn Ser
20 25

<210> 302
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 302
Ile Ser Gly Asp Asn Val Arg Asn Met Val Tyr Leu Gln Met Asn Ser
1 5 10 15

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ser Ala
20 25

<210> 303
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 303
Ile Ser Gly Glu Asn Gly Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 304
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 304
Ile Ser Arg Asp Asn Ala Asn Asn Ala Ile Tyr Leu Glu Met Asn Ser
1 5 10 15

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

<210> 305
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 305
Ile Ser Arg Asp Asn Ala Glu Asn Thr Val Ser Leu Gln Met Asn Thr
1   5   10   15

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

<210> 306
<211> 29
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 306
Ile Ser Lys Asp Ser Thr Arg Asn Thr Val Tyr Leu Gln Met Asn Met
1   5   10   15

Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
            20   25

<210> 307
<211> 29
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 307
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 308
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 308
Ile Ser Arg Asp Ile Asp Lys Lys Thr Val Tyr Leu Gln Met Asp Asn
1   5   10   15

Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys Asn Ser
            20   25

<210> 309
<211> 29
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 309
Ile Ser Arg Asp Ile Tyr Lys Lys Thr Val Tyr Leu Gln Met Asp Asn
1   5   10   15

Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys Asn Ser
            20   25

<210> 310
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 310
Ile Ser Arg Asp Asn Ala Lys Thr Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys Thr Ile
            20   25

<210> 311
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 311
Ile Ser Lys Glu Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1 5 10 15

Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys His Ile
20 25

<210> 312
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 312
Ile Ser Arg Asp Asn Ala Lys Ser Thr Val Tyr Leu Gln Met Asn Ser
1 5 10 15

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Lys Ala
20 25

<210> 313
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 313
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1 5 10 15

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
20 25

<210> 314
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 314
Ile Ser Arg Asp Asn Ala Ala Asn Thr Phe Tyr Leu Gln Met Asn Asn
1 5 10 15

Leu Arg Pro Asp Asp Thr Ala Val Tyr Tyr Cys Asn Val
20 25

<210> 315
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 315
Val Ser Arg Asp Ile Val Lys Asn Thr Met Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 316
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 316
Ile Ser Arg Asp Asn Thr Gln Asn Leu Val Tyr Leu Gln Met Asn Asn
1 5 10 15

Leu Gln Pro His Asp Thr Ala Ile Tyr Tyr Cys Gly Ala
20 25

<210> 317
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 317
Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Asn
1 5 10 15

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

<210> 318
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 318
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Arg
1 5 10 15

Leu Thr Pro Glu Asp Thr Asp Val Tyr Tyr Cys Arg Phe
20 25

<210> 319
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 319
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Glu Ser
1 5 10 15

Leu Val Ala Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
20 25

<210> 320
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 320
Val Ser Arg Asp Ser Ala Lys Asn Ile Val Tyr Leu Gln Met Asn Ser
1   5   10   15

Leu Thr Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Thr
            20   25

<210> 321
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 321
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 322
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 322
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 323
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 323
Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser
1 5 10 15

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
20 25

<210> 324
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 324
Val Ser Arg Asp Ser Ala Lys Asn Ile Val Tyr Leu Gln Met Asn Arg
1 5 10 15

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

<210> 325
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 325
Ile Ser Arg Asp Asn Ala Arg Asn Thr Val Tyr Leu Gln Met Asp Ser
1 5 10 15

Leu Lys Pro Glu Asp Thr Ala Ile Tyr Thr Cys His Val
20 25

<210> 326
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 326
Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn Asn
1 5 10 15

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

<210> 327
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 327
Ile Ser Arg Asp Asn Ala Lys Asn Thr Ala Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 328
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 328
Val Ser Arg Asp Ser Ala Lys Asn Ile Val Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 329
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 329
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 330
<211> 29
<212> PRT
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<220>
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      peptide

<400> 330
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 331
<211> 29
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<220>
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      peptide

<400> 331
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 332
<211> 29
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<220>
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      peptide

<400> 332
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 333
<211> 29
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<213> Artificial Sequence

<220>
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      peptide

<400> 333
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 334
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 334
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 335
<211> 29
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<213> Artificial Sequence

<220>
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      peptide

<400> 335
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 336
<211> 29
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 336
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 337
<211> 29
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<220>
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peptide

<400> 337
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1 5 10 15

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

<210> 338
<211> 29
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<213> Artificial Sequence

<220>
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peptide

<400> 338
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 339
<211> 29
<212> PRT
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<220>
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      peptide

<400> 339
Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
1   5   10   15

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

<210> 340
<211> 11
<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 340
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1   5   10

<210> 341
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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      peptide

<400> 341
Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser
1   5   10

<210> 342
<211> 11
<212> PRT
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<220>
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peptide

<400> 342
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 343
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 343
Phe Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 344
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 344
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 345
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 345
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser

1 5 10

<210> 346
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 346
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 347
<211> 11
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<400> 347
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 348
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<400> 348
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 349
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<400> 349
Gln Gly Thr Leu Val Thr Val Ser Ser
1 5

<210> 350
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<400> 350
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 351
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<400> 351
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 352
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<400> 352
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 353
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peptide

<400> 353
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 354
<211> 11
<212> PRT
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<220>
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<400> 354
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 355
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<400> 355
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 356
<211> 11
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<400> 356
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 357
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peptide

<400> 357
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1 5 10

<210> 358
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<400> 358
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 359
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peptide

<400> 359
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 360
<211> 11
<212> PRT
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peptide

<400> 360
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1 5 10

<210> 361
<211> 11
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peptide

<400> 361
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 362
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peptide

<400> 362
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 363
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peptide

<400> 363
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 364
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peptide

<400> 364
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 365

<211> 11
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peptide

<400> 365
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 366
<211> 11
<212> PRT
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<220>
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peptide

<400> 366
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 367
<211> 11
<212> PRT
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<220>
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peptide

<400> 367
Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
1 5 10

<210> 368
<211> 11
<212> PRT
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<220>
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peptide

<400> 368
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 369
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 369
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 370
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<212> PRT
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peptide

<400> 370
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 371
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<220>
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peptide

<400> 371
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 372
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<212> PRT
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<220>
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peptide

<400> 372
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

1 5 10

<210> 373
<211> 13
<212> PRT
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<400> 373
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
1 5 10

<210> 374
<211> 13
<212> PRT
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<400> 374
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
1 5 10

<210> 375
<211> 13
<212> PRT
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<220>
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<400> 375
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
1 5 10

<210> 376
<211> 10
<212> PRT
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<220>
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<400> 376
Trp Gly Gln Gly Thr Leu Val Thr Val Ser
1 5 10

<210> 377
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<400> 377
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 378
<211> 11
<212> PRT
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<220>
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<400> 378
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 379
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<220>
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<400> 379
His His His His His His
1 5