SEQUENCE LISTING

<110> AKREVIA THERAPEUTICS INC.
City of Hope
WILLIAMS, John C.
KAROW, Margaret

<120> ACTIVATABLE MASKED ANTI-CTLA4 BINDING PROTEINS

<130> 73776-20016.40

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<141> Concurrently Herewith

<150> US 62/785,111
<151> 2018-12-26

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Val Pro Leu Ser Leu Tyr
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Ser His Gly Gly
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His Gly Gly Gly
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Pro Gly Gly Gly Ser Ser Pro
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Asn Pro Arg Gly Gly Gly Ser
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<211> 33
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<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 120
Ala Cys His Phe Pro His Pro Glu Gly Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
20 25 30
Ser

<210> 121
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 121
Ala Cys Leu Pro Pro Phe Pro Thr Lys Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
20 25 30
Ser

<210> 122
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 122
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser

<210> 123
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 123
Ala Cys Pro Asp His Val Phe Pro Lys Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser

<210> 124
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 124
Ala Cys Trp Leu Pro Lys Pro Asp Met Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser

<210> 125
<211> 33

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 125
Ala Cys Trp Ser Trp Pro Ser Lys Ala Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser

<210> 126
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 126
Ala Cys Tyr Pro Phe Gly Lys Tyr Glu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser

<210> 127
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 127
Ala Leu Thr Pro Ala Lys Trp Leu Pro Ala Asp Asp Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
            20   25   30
Gly Gly Ser
        35

<210> 128
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 128
Asp Asp Lys Glu Cys Asp Trp Met His Phe Ala Cys Thr Gly Pro Gln
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Gly Gly Gly Ser
        35

<210> 129
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 129
Asp Glu Met Lys Cys Ala Trp Ser Leu Glu Met Cys Val Arg Thr Ser
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Gly Gly Gly Ser
        35

<210> 130
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 130
Asp Pro Ile Leu Cys Pro Asn Thr Arg Met Ser Cys Asp Asn Gln Thr
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Gly Gly Gly Ser
        35

<210> 131
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 131
Gly Asn Ala Leu Tyr Asp Ser Pro Gly Thr Met Leu Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
            20   25   30
Gly Gly Ser
        35

<210> 132
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 132
Lys Asn Tyr Glu Cys Arg Glu Val Met Pro Pro Cys Glu Pro Asn Thr
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Gly Gly Gly Ser
        35

<210> 133
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 133
Asn Ser Tyr Thr Ser Pro Tyr Trp Leu Pro Asp Ser Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
            20   25   30
Gly Gly Ser
        35

<210> 134
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 134
Ser Leu Thr Pro Pro Tyr Trp Ile Pro Arg Glu Trp Gly Gly Gly Ser
 1   5   10   15

Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
20 25 30
Gly Gly Ser
35

<210> 135
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 135
Ser Pro Leu Thr Pro His Asp Arg Pro Ser Phe Leu Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
20 25 30
Gly Gly Ser
35

<210> 136
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 136
Thr Ala Asp Val Phe Ser Ser Ser Arg Tyr Thr Arg Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
20 25 30
Gly Gly Ser
35

<210> 137
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 137
Thr Asp Leu Gln Cys Pro Pro Ser Ser Pro Ile Cys Gln Ile Glu His
1 5 10 15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
20 25 30
Asn Pro Arg Gly Gly Gly Ser

35

<210> 138
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 138
Thr Lys Cys His Cys Asp Gly Asn Cys Val Met Cys Tyr Gln Met Gln
1 5 10 15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
20 25 30
Asn Pro Arg Gly Gly Gly Ser
35

<210> 139
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 139
Thr Leu Ala Tyr Glu Thr Pro Leu Leu Trp Leu Pro Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
20 25 30
Gly Gly Ser
35

<210> 140
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 140
Thr Asn Trp His Cys Asn Asn Asp Gly Ser Ser Cys Asn Val Arg Ala
1 5 10 15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
20 25 30
Asn Pro Arg Gly Gly Gly Ser
35

<210> 141
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 141
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Gly Ala Cys Asn Leu Ile Val
 1   5   10   15
Glu Gly His Cys Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly
            20   25   30
Gly

<210> 142
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 142
Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Cys Asn Leu Ile Val Glu
 1   5   10   15
Gly His Cys Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly Gly
            20   25   30

<210> 143
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 143
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Ala Cys Asn Leu Ile
 1   5   10   15
Val Glu Gly His Cys Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly
            20   25   30
Gly Gly

<210> 144
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 144
Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu Gly
 1   5   10   15
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Pro Leu
            20   25   30
Ser Leu Tyr Ser Gly Gly Gly
        35

<210> 145
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 145
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Gly Ala Cys Asn Leu Ile Val
 1   5   10   15
Glu Gly His Cys Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro
            20   25   30
Arg Gly Gly Ser
        35

<210> 146
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 146
Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Cys Asn Leu Ile Val Glu
 1   5   10   15
Gly His Cys Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg
            20   25   30
Gly Gly Ser
        35

<210> 147
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 147
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Ala Cys Asn Leu Ile
 1   5   10   15
Val Glu Gly His Cys Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn
            20   25   30
Pro Arg Gly Gly Ser
        35

<210> 148
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 148
Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu Gly
 1   5   10   15
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Ser Thr Ser Thr Ser
            20   25   30
Gly Arg Ser Ala Asn Pro Arg Gly Gly Ser
        35   40

<210> 149
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 149
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Met Pro Tyr
 1   5   10   15
Asp Leu Tyr His Pro Ser Gly Gly Gly
            20   25

<210> 150
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 150
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Gly Ile
 1   5   10   15
Gly Gln Leu Thr Ala Ser Gly Gly Gly
            20   25

<210> 151
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 151
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Leu Gly
 1   5   10   15
Arg Phe Gln Thr Phe Ser Gly Gly Gly
            20   25

<210> 152
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 152
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Ser Gly
 1   5   10   15
Gly Phe Met Leu Thr Ser Gly Gly Gly
            20   25

<210> 153
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 153
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Thr Ser Val
 1   5   10   15
Leu Met Ala Ala Pro Ser Gly Gly Gly
            20   25

<210> 154
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 154
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Thr Ser Glu
 1   5   10   15
Phe Val Phe Ala Pro Asp Gln Ser Gly Gly Gly
            20   25

<210> 155
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 155
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Lys Leu Val
 1   5   10   15
Leu Pro Val Leu Pro Ser Gly Gly Gly
            20   25

<210> 156
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 156
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Lys Pro Ile
 1   5   10   15
Leu Phe Phe Arg Leu Ser Gly Gly Gly
            20   25

<210> 157
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 157
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ala Asn Gln
 1   5   10   15
Leu Lys Gly Ser Gly Gly Gly
            20

<210> 158

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

<220>
<223> Synthetic Construct

<400> 158
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gln Ser Gln
 1   5   10   15
Leu Lys Glu Ser Gly Gly Gly
            20

<210> 159
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 159
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser His Glu Gln
 1   5   10   15
Leu Thr Val Ser Gly Gly Gly
            20

<210> 160
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 160
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Pro Ala Asn
 1   5   10   15
Leu Val Ala Pro Asp Pro Ser Gly Gly Gly
            20   25

<210> 161
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 161
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Pro Ala Pro

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 1               5                  10                  15
Gly Val Tyr Pro Gly Pro Ser Gly Gly Gly
            20                  25


<210> 162
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 162
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ala Pro Ala
 1               5                  10                  15
Gly Leu Ile Val Pro Tyr Asn Ser Gly Gly Gly
            20                  25


<210> 163
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 163
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Pro Gln Ala
 1               5                  10                  15
Leu Val Ala Ser Gly Gly Gly
            20


<210> 164
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 164
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Gly Asn
 1               5                  10                  15
Leu Asn Phe Ser Gly Gly Gly
            20


<210> 165
<211> 24
<212> PRT
<213> Artificial Sequence
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<220>
<223> Synthetic Construct

<400> 165
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Ala Asn
 1   5   10   15
Leu Leu Tyr Glu Ser Gly Gly Gly
            20

<210> 166
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 166
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Tyr Asn
 1   5   10   15
Leu Met Asp Ser Gly Gly Gly
            20

<210> 167
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 167
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Thr Phe Asn
 1   5   10   15
Ile Lys Gln Ser Gly Gly Gly
            20

<210> 168
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 168
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Leu Trp
 1   5   10   15
Lys Leu Leu Pro Ser Gly Gly Gly
            20

<210> 169
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 169
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Pro Gly Ser
 1   5   10   15
Thr Lys Arg Ala Ser Gly Gly Gly
            20

<210> 170
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 170
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gln Gln Tyr
 1   5   10   15
Arg Ala Leu Lys Ser Ser Gly Gly Gly
            20   25

<210> 171
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 171
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Tyr Val Pro
 1   5   10   15
Arg Ala Val Leu Ser Gly Gly Gly
            20

<210> 172
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 172
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Val Asn
 1   5   10   15
Lys Trp Pro Thr Ser Gly Gly Gly
            20

<210> 173
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 173
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Leu Ala Gln
 1   5   10   15
Ala Val Arg Ser Ser Ser Gly Gly Gly
            20   25

<210> 174
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 174
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Arg Ala Ala
 1   5   10   15
Ala Val Lys Ser Pro Ser Gly Gly Gly
            20   25

<210> 175
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 175
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Leu Leu
 1   5   10   15
Ala Val Val Ala Ala Ser Ser Gly Gly Gly
            20   25

<210> 176

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

<220>
<223> Synthetic Construct

<400> 176
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Gln Thr
 1   5   10   15
Val Thr Trp Pro Asp Ser Gly Gly Gly
            20   25

<210> 177
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 177
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ala Ile Pro
 1   5   10   15
Met Ser Ile Pro Pro Ser Gly Gly Gly
            20   25

<210> 178
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 178
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Tyr Glu
 1   5   10   15
Val His His Gln Lys Ser Gly Gly Gly
            20   25

<210> 179
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 179
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val His His

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 1               5                  10                  15
Gln Lys Leu Val Phe Ser Gly Gly Gly
            20                  25


<210> 180
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 180
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ile Arg Arg
 1               5                  10                  15
Val Ser Tyr Ser Phe Ser Gly Gly Gly
            20                  25


<210> 181
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 181
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Met Pro Tyr
 1               5                  10                  15
Asp Leu Tyr His Pro Ile Leu Phe Phe Arg Leu Ser Gly Gly Gly
            20                  25                  30


<210> 182
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 182
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Gly Ile
 1               5                  10                  15
Gly Gln Leu Thr Ser Val Leu Met Ala Ala Pro Ser Gly Gly Gly
            20                  25                  30


<210> 183
<211> 32
<212> PRT
<213> Artificial Sequence
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<220>
<223> Synthetic Construct

<400> 183
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Ser Gly
 1   5   10   15
Gly Phe Met Leu Thr Leu Val Leu Pro Val Leu Pro Ser Gly Gly Gly
            20   25   30

<210> 184
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 184
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Thr Ser Glu
 1   5   10   15
Phe Val Phe Ala Pro Asp Leu Gly Arg Phe Gln Thr Phe Ser Gly Gly
            20   25   30
Gly

<210> 185
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 185
Ala Cys Asn Leu Ile Val Gln Gly His Cys Gly Gly Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser Gly Gly Gly
            20

<210> 186
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 186
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly His Ser Val Pro Leu
 1   5   10   15

Ser Leu Tyr Ser His Gly Gly
            20

<210> 187
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 187
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser His Gly Gly
            20

<210> 188
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 188
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly His Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser Gly Gly Gly
            20

<210> 189
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 189
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr His Gly Gly Gly
            20

<210> 190
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 190
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly His Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr His Gly Gly Gly
            20

<210> 191
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 191
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Pro Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser Gly Ala Ala
            20

<210> 192
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 192
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Ala Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser Gly Pro Ala
            20

<210> 193
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 193
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Pro Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser Gly Pro Ala
            20

<210> 194
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 194
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

<210> 195
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 195
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Ser Gly Gly Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg
            20   25   30
Ser Gly Gly
        35

<210> 196
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 196
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
            20   25   30
Gly Gly

<210> 197
<211> 33

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 197
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly
            20   25   30
Gly

<210> 198
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 198
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 199
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 199
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30
Ser Gly Gly
        35

<210> 200
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 200
Ala Cys Lys His Ala Pro Tyr Ala Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 201
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 201
Ala Cys Pro Phe Pro Ala Lys Ile Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 202
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 202
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 203
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 203
Asn Trp Leu Gly Glu Trp Leu Pro Pro Gly Lys Val Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
            20   25   30
Gly Gly

<210> 204
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 204
Gln Phe Ile Glu Cys Pro Asn Phe Pro Arg Gln Cys Pro Gly Lys Asn
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

<210> 205
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 205
Val Arg Gln Gln Cys Ser Leu Asn Pro Gly Arg Cys Pro Tyr Leu Val
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

<210> 206
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 206
Val Trp Gln Glu Cys His Thr Ala Pro Gln Leu Cys Pro Gly Lys Ile
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

<210> 207
<211> 32

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 207
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Gly Ser Ser Gly
            20   25   30

<210> 208
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 208
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro His Ser Gly Gly
            20   25   30

<210> 209
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 209
Asp Ser Tyr Thr Cys Arg Gly Pro Thr Trp Met Cys Ala Gly Asn Met
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

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

<220>
<223> Synthetic Construct

<400> 210

Phe Asn His Asp Cys Ser Gly His Trp Met Arg Cys Leu Asp Gln Gln
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

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

<220>
<223> Synthetic Construct

<400> 211
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly Ser Gly Gly
            20   25   30

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

<220>
<223> Synthetic Construct

<400> 212
Asn Lys Ser Pro Cys Arg Pro Lys Met Val Ala Cys Tyr Gly Ile Leu
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

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

<220>
<223> Synthetic Construct

<400> 213
Pro Thr Pro Gln Cys Trp Asn Gln Tyr Tyr Glu Cys Trp Ile Pro Ser
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly

35

<210> 214
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 214
Ser Gln Lys Cys Pro Trp Thr Lys Glu Thr Cys Met His Tyr Met Gly
1 5 10 15
Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn
20 25 30
Pro Arg Ser Gly Gly
35

<210> 215
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 215
Trp His Leu Ser Met Tyr Pro Lys Pro Pro Ala Glu Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
20 25 30
Gly Gly

<210> 216
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 216
Trp His Thr Asp Gly Phe Tyr Thr Arg Leu Pro Ala Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
20 25 30
Gly Gly

<210> 217
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 217
Ala Cys Ile His Ala Pro Tyr Ala Lys Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 218
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 218
Ala Cys Pro Ala Lys Ile Gly Gln Glu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 219
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 219
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 220
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 220

Ala Cys Thr Lys Pro Ala Lys Ala Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30

<210> 221
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 221
Asp Thr Ala Thr Cys Tyr Thr Thr Thr Gly Trp Cys Glu Gly Met Val
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

<210> 222
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 222
Asn Ser Asp Asn Cys Gly Pro Ala Lys Ser Thr Cys Met Tyr Asn Asp
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly
        35

<210> 223
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 223
Pro Pro Gly Lys Cys Thr Gln Pro His Arg Cys Pro Pro Leu Asn Gly
 1   5   10   15
Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn
            20   25   30
Pro Arg Ser Gly Gly

35

<210> 224
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 224
Ala Cys Ile His Ala Pro Tyr Ala Lys Cys Gly Ser Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
20 25 30
Gly Gly

<210> 225
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 225
Ala Cys Pro Ala Lys Ile Gly Gln Glu Cys Gly Ser Ser Gly Gly Ser
1 5 10 15
Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30

<210> 226
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 226
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
20 25 30
Ser Gly Gly
35

<210> 227
<211> 28

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 227
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Thr Ser
 1   5   10   15
Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25

<210> 228
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 228
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Gly Val Pro Leu Ser Leu Tyr Ser Gly Gly
            20   25

<210> 229
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 229
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Ser Thr Ser Thr Ser
 1   5   10   15
Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25

<210> 230
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 230
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Ser Thr Ser Thr
 1   5   10   15

Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25

<210> 231
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 231
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Thr Ser
 1   5   10   15
Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly
            20   25

<210> 232
<211> 100
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 232
Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro
            100

<210> 233
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 233
Glu Ala Lys Leu Gln Glu Ser Gly Pro Val Leu Val Lys Pro Gly Ala

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

<210> 234
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 234

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

<210> 235
<211> 329
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 235

```
Lys Thr Thr Ala Pro Ser Val Tyr Pro Leu Ala Pro Val Cys Gly Asp
```

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

<210> 236
<211> 335
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 236

```
Lys Thr Thr Pro Pro Ser Val Tyr Pro Leu Ala Pro Gly Cys Gly Asp
 1               5                  10                  15
```

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


<210> 237
<211> 219
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 237
Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly
 1               5                  10                  15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
```

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


<210> 238
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 238
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Pro Leu
 1               5                  10                  15
Ser Leu Tyr Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
            20                  25                  30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35                  40                  45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
    50                  55                  60
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
65                  70                  75                  80
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
                85                  90                  95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100                 105                 110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115                 120                 125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130                 135                 140
```

```
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145                 150                 155                 160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165                 170                 175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180                 185                 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195                 200                 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210                 215                 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225                 230                 235                 240
Glu Cys
```

<210> 239
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 239

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

225 230 235 240
Asn Arg Asn Glu Cys
245

<210> 240
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 241
<211> 245
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 241
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Ser Thr Ser Ala Ser
 1   5   10   15
Gly Ala Ser Ala Ser Ala Ala Gly Gly Ser Asp Ile Val Met Thr Gln
            20   25   30
Thr Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser
        35   40   45
Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu
    50   55   60
Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr
65   70   75   80
Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
                85   90   95
Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
            100   105   110
Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr
        115   120   125
Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro
    130   135   140
Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly
145   150   155   160
Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn
                165   170   175
Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn
            180   185   190
Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser
        195   200   205
Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr
    210   215   220
Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe
225   230   235   240
Asn Arg Asn Glu Cys
                245

<210> 242
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 242
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Pro Ser Ser
 1   5   10   15
Pro Gly Gly Gly Ser Ser Pro Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35   40   45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
    50   55   60

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

<210> 243
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 243

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

145 150 155 160
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
165 170 175
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
180 185 190
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
195 200 205
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
210 215 220
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
225 230 235 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
245 250 255
Glu Cys

<210> 244
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 244
Ile Ser Asp Gln Cys Ser Val Leu Phe Leu Ser Cys Asn Thr Arg Val
1 5 10 15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
20 25 30
Asn Pro Arg Gly Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu
35 40 45
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
50 55 60
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
65 70 75 80
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
85 90 95
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
100 105 110
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
115 120 125
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
130 135 140
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
145 150 155 160
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
165 170 175
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
180 185 190
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
195 200 205
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
210 215 220

```
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
225                 230                 235                 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
                245                 250                 255
Glu Cys
```

<210> 245
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 245

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

<210> 246
<211> 252
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 246
Ala Cys Leu Pro Pro Phe Pro Thr Lys Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu
        35   40   45
Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His
    50   55   60
Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln
65   70   75   80
Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val
                85   90   95
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
            100   105   110
Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln
        115   120   125
Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
    130   135   140
Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser
145   150   155   160
Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn
                165   170   175
Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu
            180   185   190
Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp
        195   200   205
Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr
    210   215   220
Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr
225   230   235   240
Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 247
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 247
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu

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

<210> 248
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 248

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

```
Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
    130                 135                 140
Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser
145                 150                 155                 160
Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn
                165                 170                 175
Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu
            180                 185                 190
Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp
        195                 200                 205
Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr
    210                 215                 220
Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr
225                 230                 235                 240
Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250


<210> 249
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 249
Ala Cys Trp Leu Pro Lys Pro Asp Met Cys Gly Gly Gly Ser Ser Gly
 1               5                  10                  15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20                  25                  30
Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu
        35                  40                  45
Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His
    50                  55                  60
Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln
65                  70                  75                  80
Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val
                85                  90                  95
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
            100                 105                 110
Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln
        115                 120                 125
Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
    130                 135                 140
Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser
145                 150                 155                 160
Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn
                165                 170                 175
Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu
            180                 185                 190
Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp
        195                 200                 205
Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr
```

```
    210                 215                 220
Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr
225                 230                 235                 240
Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250
```

<210> 250
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 250

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

<210> 251
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 251
Ala Cys Tyr Pro Phe Gly Lys Tyr Glu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Gly
            20   25   30
Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu
        35   40   45
Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His
    50   55   60
Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln
65   70   75   80
Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val
                85   90   95
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
            100   105   110
Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln
        115   120   125
Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
    130   135   140
Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser
145   150   155   160
Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn
                165   170   175
Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu
            180   185   190
Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp
        195   200   205
Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr
    210   215   220
Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr
225   230   235   240
Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 252
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 252
Ala Leu Thr Pro Ala Lys Trp Leu Pro Ala Asp Asp Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
            20   25   30
Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val
        35   40   45

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

<210> 253
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 253

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

```
    130                 135                 140
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
145                 150                 155                 160
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
                165                 170                 175
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
            180                 185                 190
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
        195                 200                 205
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
    210                 215                 220
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
225                 230                 235                 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
                245                 250                 255
Glu Cys
```

<210> 254
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 254

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

```
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
    210                 215                 220
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
225                 230                 235                 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
                245                 250                 255
Glu Cys
```

<210> 255
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 255

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

<210> 256
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 256
Gly Asn Ala Leu Tyr Asp Ser Pro Gly Thr Met Leu Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
            20   25   30
Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val
        35   40   45
Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile
    50   55   60
Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro
65   70   75   80
Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
                85   90   95
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
            100   105   110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
        115   120   125
Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu
    130   135   140
Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
145   150   155   160
Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
                165   170   175
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
            180   185   190
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser
        195   200   205
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
    210   215   220
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
225   230   235   240
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 257
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 257
Lys Asn Tyr Glu Cys Arg Glu Val Met Pro Pro Cys Glu Pro Asn Thr

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

<210> 258
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 258

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

```
Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
                85                  90                  95
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
            100                 105                 110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
        115                 120                 125
Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu
    130                 135                 140
Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
145                 150                 155                 160
Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
                165                 170                 175
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
            180                 185                 190
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser
        195                 200                 205
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
    210                 215                 220
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
225                 230                 235                 240
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250
```

<210> 259
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 259

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

```
                165                 170                 175
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
            180                 185                 190
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser
        195                 200                 205
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
    210                 215                 220
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
225                 230                 235                 240
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250
```

<210> 260
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 260

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

<210> 261
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 261
Thr Ala Asp Val Phe Ser Ser Ser Arg Tyr Thr Arg Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
            20   25   30
Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val
        35   40   45
Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile
    50   55   60
Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro
65   70   75   80
Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
                85   90   95
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
            100   105   110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
        115   120   125
Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu
    130   135   140
Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
145   150   155   160
Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
                165   170   175
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
            180   185   190
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser
        195   200   205
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
    210   215   220
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
225   230   235   240
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 262
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 262

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

<210> 263
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 263

```
Thr Lys Cys His Cys Asp Gly Asn Cys Val Met Cys Tyr Gln Met Gln
 1               5                  10                  15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20                  25                  30
Asn Pro Arg Gly Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu
        35                  40                  45
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
    50                  55                  60
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
```

65 70 75 80
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
85 90 95
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
100 105 110
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
115 120 125
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
130 135 140
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
145 150 155 160
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
165 170 175
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
180 185 190
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
195 200 205
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
210 215 220
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
225 230 235 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
245 250 255
Glu Cys

<210> 264
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 264
Thr Leu Ala Tyr Glu Thr Pro Leu Leu Trp Leu Pro Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly
20 25 30
Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val
35 40 45
Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile
50 55 60
Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro
65 70 75 80
Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
85 90 95
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
100 105 110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
115 120 125
Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu
130 135 140

Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
145 150 155 160
Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
165 170 175
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
180 185 190
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser
195 200 205
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
210 215 220
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
225 230 235 240
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
245 250

<210> 265
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

225 230 235 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
245 250 255
Glu Cys

<210> 266
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 266
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala Gly Ala Cys Asn Leu Ile Val
1 5 10 15
Glu Gly His Cys Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly
20 25 30
Gly Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu
35 40 45
Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His
50 55 60
Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln
65 70 75 80
Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val
85 90 95
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
100 105 110
Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln
115 120 125
Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
130 135 140
Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser
145 150 155 160
Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn
165 170 175
Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu
180 185 190
Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp
195 200 205
Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr
210 215 220
Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr
225 230 235 240
Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
245 250

<210> 267
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 267
Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Cys Asn Leu Ile Val Glu
 1   5   10   15
Gly His Cys Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly Gly
            20   25   30
Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly
        35   40   45
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
    50   55   60
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
65   70   75   80
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
                85   90   95
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
            100   105   110
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
        115   120   125
Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
    130   135   140
Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu
145   150   155   160
Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe
                165   170   175
Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg
            180   185   190
Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser
        195   200   205
Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu
    210   215   220
Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser
225   230   235   240
Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 268
<211> 253
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 268
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Ala Cys Asn Leu Ile
 1   5   10   15
Val Glu Gly His Cys Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly
            20   25   30
Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser
        35   40   45

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

<210> 269
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 269

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

```
    130                 135                 140
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
145                 150                 155                 160
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
                165                 170                 175
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
            180                 185                 190
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
        195                 200                 205
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
    210                 215                 220
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
225                 230                 235                 240
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
                245                 250                 255
Glu Cys
```

<210> 270
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 270

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

```
Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys
    210                 215                 220
Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys
225                 230                 235                 240
Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250                 255


<210> 271
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 271
Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Cys Asn Leu Ile Val Glu
 1               5                  10                  15
Gly His Cys Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg
            20                  25                  30
Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val
        35                  40                  45
Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile
    50                  55                  60
Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro
65                  70                  75                  80
Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser
                85                  90                  95
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
            100                 105                 110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
        115                 120                 125
Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu
    130                 135                 140
Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro
145                 150                 155                 160
Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu
                165                 170                 175
Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly
            180                 185                 190
Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser
        195                 200                 205
Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp
    210                 215                 220
Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr
225                 230                 235                 240
Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250


<210> 272
<211> 256
<212> PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 272
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Gly Ala Cys Asn Leu Ile
 1   5   10   15
Val Glu Gly His Cys Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn
            20   25   30
Pro Arg Gly Gly Ser Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu
        35   40   45
Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln
    50   55   60
Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln
65   70   75   80
Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg
                85   90   95
Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
            100   105   110
Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr
        115   120   125
Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr
    130   135   140
Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe
145   150   155   160
Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys
                165   170   175
Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile
            180   185   190
Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln
        195   200   205
Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr
    210   215   220
Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His
225   230   235   240
Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250   255

<210> 273
<211> 261
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 273
Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu Gly
 1   5   10   15
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Ser Thr Ser Thr Ser
            20   25   30
Gly Arg Ser Ala Asn Pro Arg Gly Gly Ser Asp Ile Val Met Thr Gln

```
        35                  40                  45
Thr Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser
    50                  55                  60
Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu
65                  70                  75                  80
Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr
                85                  90                  95
Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
            100                 105                 110
Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
        115                 120                 125
Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr
    130                 135                 140
Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro
145                 150                 155                 160
Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly
                165                 170                 175
Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn
            180                 185                 190
Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn
        195                 200                 205
Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser
    210                 215                 220
Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr
225                 230                 235                 240
Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe
                245                 250                 255
Asn Arg Asn Glu Cys
            260
```

<210> 274
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 274

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

```
Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
        115                 120                 125
Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr
    130                 135                 140
Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala
145                 150                 155                 160
Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val
                165                 170                 175
Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser
            180                 185                 190
Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr
        195                 200                 205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
    210                 215                 220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225                 230                 235                 240
Arg Asn Glu Cys
```

<210> 275
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 275

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

```
        195                 200                 205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
    210                 215                 220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225                 230                 235                 240
Arg Asn Glu Cys
```

<210> 276
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 276

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

<210> 277
<211> 244

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 277
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Ser Gly
 1   5   10   15
Gly Phe Met Leu Thr Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
            20   25   30
Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
        35   40   45
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
    50   55   60
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
65   70   75   80
Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
                85   90   95
Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
            100   105   110
Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
        115   120   125
Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr
    130   135   140
Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala
145   150   155   160
Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val
                165   170   175
Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser
            180   185   190
Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr
        195   200   205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
    210   215   220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225   230   235   240
Arg Asn Glu Cys

<210> 278
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 278
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Thr Ser Val
 1   5   10   15
Leu Met Ala Ala Pro Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
            20   25   30

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

<210> 279
<211> 246
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 279

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

```
        115                 120                 125
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala
    130                 135                 140
Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly
145                 150                 155                 160
Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile
                165                 170                 175
Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu
            180                 185                 190
Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser
        195                 200                 205
Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr
    210                 215                 220
Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser
225                 230                 235                 240
Phe Asn Arg Asn Glu Cys
                245
```

<210> 280
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 280

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

```
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
    210                 215                 220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225                 230                 235                 240
Arg Asn Glu Cys
```

<210> 281
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 281

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

<210> 282
<211> 242
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 282
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ala Asn Gln
 1   5   10   15
Leu Lys Gly Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35   40   45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
    50   55   60
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
65   70   75   80
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
                85   90   95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100   105   110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115   120   125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130   135   140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145   150   155   160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165   170   175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180   185   190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195   200   205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210   215   220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225   230   235   240
Glu Cys

<210> 283
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 283
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gln Ser Gln
 1   5   10   15
Leu Lys Glu Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser

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

<210> 284
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 284

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

Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
130 135 140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145 150 155 160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
165 170 175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
180 185 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
195 200 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
210 215 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225 230 235 240
Glu Cys

<210> 285
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

```
    210                 215                 220
Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe
225                 230                 235                 240
Asn Arg Asn Glu Cys
                245
```

<210> 286
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 286

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

<210> 287
<211> 246
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 287
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ala Pro Ala
 1   5   10   15
Gly Leu Ile Val Pro Tyr Asn Ser Gly Gly Gly Asp Ile Val Met Thr
            20   25   30
Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile
        35   40   45
Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr
    50   55   60
Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
65   70   75   80
Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly
                85   90   95
Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala
            100   105   110
Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr
        115   120   125
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala
    130   135   140
Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly
145   150   155   160
Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile
                165   170   175
Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu
            180   185   190
Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser
        195   200   205
Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr
    210   215   220
Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser
225   230   235   240
Phe Asn Arg Asn Glu Cys
                245

<210> 288
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 288
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Pro Gln Ala
 1   5   10   15
Leu Val Ala Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35   40   45

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

<210> 289
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 289

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

```
    130                 135                 140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145                 150                 155                 160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165                 170                 175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180                 185                 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195                 200                 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210                 215                 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225                 230                 235                 240
Glu Cys
```

<210> 290
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 290

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

Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg
225 230 235 240
Asn Glu Cys

<210> 291
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 291
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Tyr Asn
1 5 10 15
Leu Met Asp Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
20 25 30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
35 40 45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
50 55 60
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
65 70 75 80
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
85 90 95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
100 105 110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
115 120 125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
130 135 140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145 150 155 160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
165 170 175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
180 185 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
195 200 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
210 215 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225 230 235 240
Glu Cys

<210> 292
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 292
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Thr Phe Asn
 1   5   10   15
Ile Lys Gln Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35   40   45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
    50   55   60
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
65   70   75   80
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
                85   90   95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100   105   110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115   120   125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130   135   140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145   150   155   160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165   170   175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180   185   190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195   200   205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210   215   220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225   230   235   240
Glu Cys

<210> 293
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 293
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Leu Trp
 1   5   10   15
Lys Leu Leu Pro Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr
            20   25   30
Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
        35   40   45
Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp

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

<210> 294
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 294

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

```
Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser
145                 150                 155                 160
Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys
                165                 170                 175
Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp
            180                 185                 190
Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu
        195                 200                 205
Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu
    210                 215                 220
Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg
225                 230                 235                 240
Asn Glu Cys
```

<210> 295
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 295

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

225 230 235 240
Arg Asn Glu Cys

<210> 296
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 296
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Tyr Val Pro
1 5 10 15
Arg Ala Val Leu Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr
20 25 30
Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
35 40 45
Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp
50 55 60
Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val
65 70 75 80
Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser
85 90 95
Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu
100 105 110
Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly
115 120 125
Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val
130 135 140
Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser
145 150 155 160
Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys
165 170 175
Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp
180 185 190
Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu
195 200 205
Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu
210 215 220
Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg
225 230 235 240
Asn Glu Cys

<210> 297
<211> 243
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 297
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Val Asn
 1   5   10   15
Lys Trp Pro Thr Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr Thr
            20   25   30
Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
        35   40   45
Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp
    50   55   60
Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val
65   70   75   80
Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser
                85   90   95
Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu
            100   105   110
Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly
        115   120   125
Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val
    130   135   140
Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser
145   150   155   160
Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys
                165   170   175
Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp
            180   185   190
Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu
        195   200   205
Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu
    210   215   220
Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg
225   230   235   240
Asn Glu Cys

<210> 298
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 298
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Leu Ala Gln
 1   5   10   15
Ala Val Arg Ser Ser Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
            20   25   30
Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
        35   40   45
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
    50   55   60

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

<210> 299
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 299

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

145 150 155 160
Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val
165 170 175
Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser
180 185 190
Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr
195 200 205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
210 215 220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225 230 235 240
Arg Asn Glu Cys

<210> 300
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

Asn Arg Asn Glu Cys
245

<210> 301
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 301
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val Gln Thr
1 5 10 15
Val Thr Trp Pro Asp Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
20 25 30
Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
35 40 45
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
50 55 60
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
65 70 75 80
Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
85 90 95
Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
100 105 110
Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
115 120 125
Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr
130 135 140
Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala
145 150 155 160
Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val
165 170 175
Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser
180 185 190
Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr
195 200 205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
210 215 220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225 230 235 240
Arg Asn Glu Cys

<210> 302
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 302
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Ala Ile Pro
 1   5   10   15
Met Ser Ile Pro Pro Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
            20   25   30
Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
        35   40   45
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
    50   55   60
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
65   70   75   80
Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
                85   90   95
Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
            100   105   110
Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
        115   120   125
Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr
    130   135   140
Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala
145   150   155   160
Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val
                165   170   175
Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser
            180   185   190
Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr
        195   200   205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
    210   215   220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225   230   235   240
Arg Asn Glu Cys

<210> 303
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 303
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Tyr Glu
 1   5   10   15
Val His His Gln Lys Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
            20   25   30
Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
        35   40   45
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
    50   55   60
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys

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

<210> 304
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 304
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Val His His
1 5 10 15
Gln Lys Leu Val Phe Ser Gly Gly Gly Asp Ile Val Met Thr Gln Thr
20 25 30
Thr Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys
35 40 45
Arg Ser Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
50 55 60
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys
65 70 75 80
Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly
85 90 95
Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp
100 105 110
Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe
115 120 125
Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr
130 135 140
Val Ser Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala
145 150 155 160

Ser Val Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val
                165   170   175
Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser
            180   185   190
Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr
        195   200   205
Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys
    210   215   220
Glu Ala Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn
225   230   235   240
Arg Asn Glu Cys

<210> 305
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 306
<211> 250
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 306
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Met Pro Tyr
 1   5   10   15
Asp Leu Tyr His Pro Ile Leu Phe Phe Arg Leu Ser Gly Gly Gly Asp
            20   25   30
Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly Asp
        35   40   45
Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn
    50   55   60
Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
65   70   75   80
Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp
                85   90   95
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser
            100   105   110
Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser
        115   120   125
His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
    130   135   140
Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
145   150   155   160
Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
                165   170   175
Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
            180   185   190
Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
        195   200   205
Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
    210   215   220
His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
225   230   235   240
Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 307
<211> 250
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 307
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Gly Gly Ile
 1   5   10   15
Gly Gln Leu Thr Ser Val Leu Met Ala Ala Pro Ser Gly Gly Gly Asp
            20   25   30
Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly Asp
        35   40   45
Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser Asn
    50   55   60
Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro
65   70   75   80
Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro Asp
                85   90   95
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser
            100   105   110
Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly Ser
        115   120   125
His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
    130   135   140
Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Gln
145   150   155   160
Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe Tyr
                165   170   175
Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg Gln
            180   185   190
Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser Thr
        195   200   205
Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu Arg
    210   215   220
His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser Pro
225   230   235   240
Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245   250

<210> 308
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 308
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Gly Ser Asp Ser Gly
 1   5   10   15
Gly Phe Met Leu Thr Leu Val Leu Pro Val Leu Pro Ser Gly Gly Gly
            20   25   30
Asp Ile Val Met Thr Gln Thr Thr Leu Ser Leu Pro Val Ser Leu Gly
        35   40   45
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
    50   55   60
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
65   70   75   80

```
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
                85                  90                  95
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
            100                 105                 110
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
        115                 120                 125
Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
    130                 135                 140
Arg Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu
145                 150                 155                 160
Gln Leu Thr Ser Gly Gly Ala Ser Val Val Cys Phe Leu Asn Asn Phe
                165                 170                 175
Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu Arg
            180                 185                 190
Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp Ser
        195                 200                 205
Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr Glu
    210                 215                 220
Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr Ser
225                 230                 235                 240
Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250
```

<210> 309
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 309

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

```
                165                 170                 175
Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp Lys Ile Asp Gly Ser Glu
            180                 185                 190
Arg Gln Asn Gly Val Leu Asn Ser Trp Thr Asp Gln Asp Ser Lys Asp
        195                 200                 205
Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr Leu Thr Lys Asp Glu Tyr
    210                 215                 220
Glu Arg His Asn Ser Tyr Thr Cys Glu Ala Thr His Lys Thr Ser Thr
225                 230                 235                 240
Ser Pro Ile Val Lys Ser Phe Asn Arg Asn Glu Cys
                245                 250


<210> 310
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 311
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 311
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly His Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser His Gly Gly Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35   40   45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
    50   55   60
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
65   70   75   80
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
                85   90   95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100   105   110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115   120   125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130   135   140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145   150   155   160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165   170   175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180   185   190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195   200   205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210   215   220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225   230   235   240
Glu Cys

<210> 312
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 312

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

<210> 313
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 313

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

```
                85                  90                  95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100                 105                 110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115                 120                 125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130                 135                 140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145                 150                 155                 160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165                 170                 175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180                 185                 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195                 200                 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210                 215                 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225                 230                 235                 240
Glu Cys
```

<210> 314
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 314

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

```
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180                 185                 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195                 200                 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210                 215                 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225                 230                 235                 240
Glu Cys
```

<210> 315
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 315

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

<210> 316
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 316
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Pro Ser Val Pro Leu
 1   5   10   15
Ser Leu Tyr Ser Gly Ala Ala Asp Ile Val Met Thr Gln Thr Thr Leu
            20   25   30
Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg Ser
        35   40   45
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr
    50   55   60
Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser
65   70   75   80
Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
                85   90   95
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100   105   110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115   120   125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130   135   140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145   150   155   160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165   170   175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180   185   190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195   200   205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210   215   220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225   230   235   240
Glu Cys

<210> 317
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 317
Ala Cys Asn Leu Ile Val Glu Gly His Cys Gly Ala Ser Val Pro Leu

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

<210> 318
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 318

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

```
Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly
            100                 105                 110
Val Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Tyr Thr Phe Gly Gly
        115                 120                 125
Gly Thr Lys Leu Glu Ile Lys Arg Ala Asp Ala Ala Pro Thr Val Ser
    130                 135                 140
Ile Phe Pro Pro Ser Ser Glu Gln Leu Thr Ser Gly Gly Ala Ser Val
145                 150                 155                 160
Val Cys Phe Leu Asn Asn Phe Tyr Pro Lys Asp Ile Asn Val Lys Trp
                165                 170                 175
Lys Ile Asp Gly Ser Glu Arg Gln Asn Gly Val Leu Asn Ser Trp Thr
            180                 185                 190
Asp Gln Asp Ser Lys Asp Ser Thr Tyr Ser Met Ser Ser Thr Leu Thr
        195                 200                 205
Leu Thr Lys Asp Glu Tyr Glu Arg His Asn Ser Tyr Thr Cys Glu Ala
    210                 215                 220
Thr His Lys Thr Ser Thr Ser Pro Ile Val Lys Ser Phe Asn Arg Asn
225                 230                 235                 240
Glu Cys
```

<210> 319
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 319

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

```
            180                 185                 190
Pro Ser Gln Ser Ile Thr Cys Asn Val Ala His Pro Ala Ser Ser Thr
        195                 200                 205
Lys Val Asp Lys Lys Ile Glu Pro Arg Gly Pro Thr Ile Lys Pro Cys
    210                 215                 220
Pro Pro Cys Lys Cys Pro Ala Pro Asn Leu Leu Gly Gly Pro Ser Val
225                 230                 235                 240
Phe Ile Phe Pro Pro Lys Ile Lys Asp Val Leu Met Ile Ser Leu Ser
                245                 250                 255
Pro Ile Val Thr Cys Val Val Val Asp Val Ser Glu Asp Asp Pro Asp
            260                 265                 270
Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val His Thr Ala Gln
        275                 280                 285
Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu Arg Val Val Ser
    290                 295                 300
Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly Lys Glu Phe Lys
305                 310                 315                 320
Cys Lys Val Asn Asn Lys Asp Leu Pro Ala Pro Ile Glu Arg Thr Ile
                325                 330                 335
Ser Lys Pro Lys Gly Ser Val Arg Ala Pro Gln Val Tyr Val Leu Pro
            340                 345                 350
Pro Pro Glu Glu Glu Met Thr Lys Lys Gln Val Thr Leu Thr Cys Met
        355                 360                 365
Val Thr Asp Phe Met Pro Glu Asp Ile Tyr Val Glu Trp Thr Asn Asn
    370                 375                 380
Gly Lys Thr Glu Leu Asn Tyr Lys Asn Thr Glu Pro Val Leu Asp Ser
385                 390                 395                 400
Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val Glu Lys Lys Asn
                405                 410                 415
Trp Val Glu Arg Asn Ser Tyr Ser Cys Ser Val Val His Glu Gly Leu
            420                 425                 430
His Asn His His Thr Thr Lys Ser Phe Ser Arg Thr Pro Gly Lys
        435                 440                 445


<210> 320
<211> 453
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 320
Glu Ala Lys Leu Gln Glu Ser Gly Pro Val Leu Val Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20                  25                  30
Tyr Met Asn Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
        35                  40                  45
Gly Val Ile Asn Pro Tyr Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe
    50                  55                  60
Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65                  70                  75                  80
```

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

<210> 321
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 321
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asn Ser
            20   25   30
Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser Gly Val Pro
    50   55   60
Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val Gln Gly
                85   90   95
Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 322
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 322
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1   5   10   15
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
        35   40   45
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
65   70   75   80
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 323
<211> 121
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 323
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr His Thr Ile Thr Ser Gly
            20   25   30
Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro Gly Lys Gly Met Glu Trp
        35   40   45
Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Phe
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser Ala
        115   120

<210> 324
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 324
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu Lys Phe
    50   55   60
Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser Ala
        115   120

<210> 325
<211> 106
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 325
Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 1   5   10   15
Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
            20   25   30
Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
        35   40   45
Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
    50   55   60
Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
65   70   75   80
His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
                85   90   95
Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
            100   105

<210> 326
<211> 329
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 326
Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser
 1   5   10   15
Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe
            20   25   30
Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly
        35   40   45
Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
    50   55   60
Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr
65   70   75   80
Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys
                85   90   95
Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
            100   105   110
Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
        115   120   125
Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
    130   135   140
Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
145   150   155   160
Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
                165   170   175
Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
            180   185   190
Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
        195   200   205

```
Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
    210                 215                 220
Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
225                 230                 235                 240
Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
                245                 250                 255
Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
            260                 265                 270
Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
        275                 280                 285
Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
    290                 295                 300
Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
305                 310                 315                 320
Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325


<210> 327
<211> 219
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 327
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asn Ser
            20                  25                  30
Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser Gly Val Pro
    50                  55                  60
Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val Gln Gly
                85                  90                  95
Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
        115                 120                 125
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
    130                 135                 140
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
145                 150                 155                 160
Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
                165                 170                 175
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
            180                 185                 190
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
        195                 200                 205
Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
```

210 215

<210> 328
<211> 257
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 328
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
1 5 10 15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
20 25 30
Asn Pro Arg Ser Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser
35 40 45
Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
50 55 60
Gln Ser Leu Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu
65 70 75 80
Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys
85 90 95
Leu Gly Ser Gly Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr
100 105 110
Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
115 120 125
Tyr Tyr Cys Val Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly
130 135 140
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
145 150 155 160
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
165 170 175
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
180 185 190
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
195 200 205
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
210 215 220
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
225 230 235 240
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
245 250 255
Cys

<210> 329
<211> 254
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 329
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Ser Gly Gly Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg
            20   25   30
Ser Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val
        35   40   45
Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
    50   55   60
Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro
65   70   75   80
Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser
                85   90   95
Gly Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
            100   105   110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
        115   120   125
Val Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val
    130   135   140
Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
145   150   155   160
Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
                165   170   175
Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
            180   185   190
Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
        195   200   205
Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
    210   215   220
Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
225   230   235   240
Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245   250

<210> 330
<211> 253
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 330
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
            20   25   30
Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
        35   40   45
Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu
    50   55   60

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Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly
65                  70                  75                  80
Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser Gly
                85                  90                  95
Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
            100                 105                 110
Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val
        115                 120                 125
Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu
    130                 135                 140
Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
145                 150                 155                 160
Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
                165                 170                 175
Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
            180                 185                 190
Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
        195                 200                 205
Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
    210                 215                 220
Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
225                 230                 235                 240
Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245                 250
```

<210> 331
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 331

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

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145                 150                 155                 160
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
                165                 170                 175
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
            180                 185                 190
Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
        195                 200                 205
Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
    210                 215                 220
Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
225                 230                 235                 240
Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245                 250


<210> 332
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 332
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1               5                  10                  15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20                  25                  30
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
        35                  40                  45
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asn Ser
    50                  55                  60
Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser
65                  70                  75                  80
Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser Gly Val Pro
                85                  90                  95
Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
            100                 105                 110
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val Gln Gly
        115                 120                 125
Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
    130                 135                 140
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
145                 150                 155                 160
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
                165                 170                 175
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
            180                 185                 190
Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
        195                 200                 205
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
    210                 215                 220
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
225                 230                 235                 240
```

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
245 250

<210> 333
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 333
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30
Ser Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val
35 40 45
Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu
50 55 60
Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro
65 70 75 80
Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser
85 90 95
Gly Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
100 105 110
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
115 120 125
Val Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val
130 135 140
Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
145 150 155 160
Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu
165 170 175
Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
180 185 190
Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
195 200 205
Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
210 215 220
Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
225 230 235 240
Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
245 250

<210> 334
<211> 213
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 334
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1   5   10   15
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
        35   40   45
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
65   70   75   80
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
            100   105   110
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
        115   120   125
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
    130   135   140
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145   150   155   160
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
                165   170   175
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
            180   185   190
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
        195   200   205
Asn Arg Gly Glu Cys
    210

<210> 335
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 335
Ala Cys Lys His Ala Pro Tyr Ala Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
        35   40   45
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
    50   55   60
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
65   70   75   80
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
                85   90   95
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu

```
            100                 105                 110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
        115                 120                 125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
    130                 135                 140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145                 150                 155                 160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
                165                 170                 175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
            180                 185                 190
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
        195                 200                 205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
    210                 215                 220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225                 230                 235                 240
Asn Arg Gly Glu Cys
                245


<210> 336
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 336
Ala Cys Pro Phe Pro Ala Lys Ile Leu Cys Gly Gly Gly Ser Ser Gly
 1               5                  10                  15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20                  25                  30
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
        35                  40                  45
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
    50                  55                  60
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
65                  70                  75                  80
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
                85                  90                  95
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
            100                 105                 110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
        115                 120                 125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
    130                 135                 140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145                 150                 155                 160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
                165                 170                 175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
            180                 185                 190
```

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
195 200 205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
210 215 220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225 230 235 240
Asn Arg Gly Glu Cys
245

<210> 337
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 337
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
35 40 45
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
50 55 60
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
65 70 75 80
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
85 90 95
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
100 105 110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
115 120 125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
130 135 140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145 150 155 160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
165 170 175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
180 185 190
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
195 200 205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
210 215 220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225 230 235 240
Asn Arg Gly Glu Cys
245

<210> 338

<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 338
Asn Trp Leu Gly Glu Trp Leu Pro Pro Gly Lys Val Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
            20   25   30
Gly Gly Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr
        35   40   45
Pro Lys Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser
    50   55   60
Tyr Met Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp
65   70   75   80
Val His Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser
                85   90   95
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu
            100   105   110
Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln
        115   120   125
Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
    130   135   140
Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
145   150   155   160
Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
                165   170   175
Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
            180   185   190
Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
        195   200   205
Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
    210   215   220
Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
225   230   235   240
Ser Phe Asn Arg Gly Glu Cys
                245

<210> 339
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 339
Gln Phe Ile Glu Cys Pro Asn Phe Pro Arg Gln Cys Pro Gly Lys Asn
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala

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


<210> 340
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 340
Val Arg Gln Gln Cys Ser Leu Asn Pro Gly Arg Cys Pro Tyr Leu Val
 1               5                  10                  15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20                  25                  30
Asn Pro Arg Ser Gly Gly Glu Ile Val Leu Thr Gln Ser Pro Asp Phe
        35                  40                  45
Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Ser Ala Asn
    50                  55                  60
Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser
65                  70                  75                  80
Pro Lys Leu Trp Val His Gly Thr Ser Asn Leu Ala Ser Gly Val Pro
                85                  90                  95
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
            100                 105                 110
```

```
Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His His Trp
        115                 120                 125
Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
    130                 135                 140
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
145                 150                 155                 160
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
                165                 170                 175
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
            180                 185                 190
Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
        195                 200                 205
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
    210                 215                 220
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
225                 230                 235                 240
Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245                 250
```

<210> 341
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 341

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

```
        195                 200                 205
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
    210                 215                 220
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
225                 230                 235                 240
Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245                 250
```

<210> 342
<211> 257
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 342

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

<210> 343
<211> 257
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 343
Phe Asn His Asp Cys Ser Gly His Trp Met Arg Cys Leu Asp Gln Gln
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser
        35   40   45
Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
    50   55   60
Gln Ser Leu Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu
65   70   75   80
Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys
                85   90   95
Leu Gly Ser Gly Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr
            100   105   110
Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
        115   120   125
Tyr Tyr Cys Val Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly
    130   135   140
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
145   150   155   160
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
                165   170   175
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
            180   185   190
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
        195   200   205
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
    210   215   220
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
225   230   235   240
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
                245   250   255
Cys

<210> 344
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 344

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


<210> 345
<211> 257
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 345
Asn Lys Ser Pro Cys Arg Pro Lys Met Val Ala Cys Tyr Gly Ile Leu
 1               5                  10                  15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20                  25                  30
Asn Pro Arg Ser Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser
        35                  40                  45
Leu Ser Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
    50                  55                  60
Gln Ser Leu Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu
65                  70                  75                  80
Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys
```

```
                85                  90                  95
Leu Gly Ser Gly Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr
            100                 105                 110
Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
        115                 120                 125
Tyr Tyr Cys Val Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly
    130                 135                 140
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
145                 150                 155                 160
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
                165                 170                 175
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
            180                 185                 190
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
        195                 200                 205
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
    210                 215                 220
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
225                 230                 235                 240
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
                245                 250                 255
Cys
```

<210> 346
<211> 257
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 346

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

Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
                165   170   175
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
            180   185   190
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
        195   200   205
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
    210   215   220
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
225   230   235   240
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
                245   250   255
Cys

<210> 347
<211> 256
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 347
Ser Gln Lys Cys Pro Trp Thr Lys Glu Thr Cys Met His Tyr Met Gly
 1   5   10   15
Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn
            20   25   30
Pro Arg Ser Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu
        35   40   45
Ser Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln
    50   55   60
Ser Leu Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln
65   70   75   80
Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu
                85   90   95
Gly Ser Gly Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
            100   105   110
Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr
        115   120   125
Tyr Cys Val Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr
    130   135   140
Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
145   150   155   160
Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
                165   170   175
Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
            180   185   190
Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
        195   200   205
Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
    210   215   220
Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His

225 230 235 240
Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
245 250 255

<210> 348
<211> 253
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 348
Trp His Leu Ser Met Tyr Pro Lys Pro Pro Ala Glu Gly Gly Gly Ser
1 5 10 15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
20 25 30
Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
35 40 45
Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu
50 55 60
Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly
65 70 75 80
Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser Gly
85 90 95
Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
100 105 110
Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val
115 120 125
Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu
130 135 140
Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
145 150 155 160
Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
165 170 175
Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
180 185 190
Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
195 200 205
Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
210 215 220
Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
225 230 235 240
Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
245 250

<210> 349
<211> 253
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 349
Trp His Thr Asp Gly Phe Tyr Thr Arg Leu Pro Ala Gly Gly Gly Ser
 1   5   10   15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
            20   25   30
Gly Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr
        35   40   45
Pro Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu
    50   55   60
Asn Ser Asp Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly
65   70   75   80
Gln Ser Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Gly Ser Gly
                85   90   95
Val Pro Asn Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
            100   105   110
Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val
        115   120   125
Gln Gly Thr His Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu
    130   135   140
Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
145   150   155   160
Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
                165   170   175
Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
            180   185   190
Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
        195   200   205
Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
    210   215   220
Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
225   230   235   240
Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245   250

<210> 350
<211> 213
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 350
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1   5   10   15
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
        35   40   45
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
65 70 75 80
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
85 90 95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205
Asn Arg Gly Glu Cys
210

<210> 351
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 351
Ala Cys Ile His Ala Pro Tyr Ala Lys Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
35 40 45
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
50 55 60
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
65 70 75 80
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
85 90 95
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
100 105 110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
115 120 125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
130 135 140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145 150 155 160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
165 170 175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu

```
            180                 185                 190
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
        195                 200                 205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
    210                 215                 220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225                 230                 235                 240
Asn Arg Gly Glu Cys
                245
```

<210> 352
<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 352

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

<210> 353
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 353
Ala Cys Pro Ala Lys Ile Gly Gln Glu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
        35   40   45
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
    50   55   60
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
65   70   75   80
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
                85   90   95
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
            100   105   110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
        115   120   125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
    130   135   140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145   150   155   160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
                165   170   175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
            180   185   190
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
        195   200   205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
    210   215   220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225   230   235   240
Asn Arg Gly Glu Cys
                245

<210> 354
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 354
Ala Cys Pro Ala Lys Ile Gly Gln Glu Cys Gly Ser Ser Gly Gly Ser
 1   5   10   15

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

<210> 355
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 355

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

```
            100                 105                 110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
        115                 120                 125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
    130                 135                 140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145                 150                 155                 160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
                165                 170                 175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
            180                 185                 190
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
        195                 200                 205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
    210                 215                 220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225                 230                 235                 240
Asn Arg Gly Glu Cys
                245
```

<210> 356
<211> 248
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 356

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

```
Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser
        195                 200                 205
Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys
    210                 215                 220
Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
225                 230                 235                 240
Lys Ser Phe Asn Arg Gly Glu Cys
                245
```

<210> 357
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 357

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

<210> 358

<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 358
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Gly Val Pro Leu Ser Leu Tyr Ser Gly Gly Glu Ile Val Leu
            20   25   30
Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr
        35   40   45
Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln
    50   55   60
Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn
65   70   75   80
Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr
                85   90   95
Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr
            100   105   110
Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly
        115   120   125
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
    130   135   140
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
145   150   155   160
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
                165   170   175
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
            180   185   190
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
        195   200   205
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
    210   215   220
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225   230   235   240
Cys

<210> 359
<211> 239
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 359
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Ser Thr Ser Thr Ser
 1   5   10   15
Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly Glu Ile Val Leu Thr Gln

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


<210> 360
<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 360
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Ser Thr Ser Thr
 1               5                  10                  15
Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly Glu Ile Val Leu Thr
            20                  25                  30
Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile
        35                  40                  45
Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln Gln
    50                  55                  60
Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn Leu
65                  70                  75                  80
Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
                85                  90                  95
Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr
            100                 105                 110
Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr
        115                 120                 125
```

Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
130 135 140
Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145 150 155 160
Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
165 170 175
Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
180 185 190
Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
195 200 205
Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
210 215 220
Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235 240

<210> 361
<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 361
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Thr Ser
1 5 10 15
Thr Ser Gly Arg Ser Ala Asn Pro Arg Gly Gly Glu Ile Val Leu Thr
20 25 30
Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile
35 40 45
Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln Gln
50 55 60
Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn Leu
65 70 75 80
Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
85 90 95
Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr
100 105 110
Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr
115 120 125
Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
130 135 140
Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145 150 155 160
Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
165 170 175
Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
180 185 190
Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
195 200 205
Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
210 215 220
Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys

225 230 235 240

<210> 362
<211> 245
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 362
Ala Cys Thr Lys Pro Ala Lys Ala Leu Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
35 40 45
Glu Lys Val Thr Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met
50 55 60
Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His
65 70 75 80
Gly Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
85 90 95
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu
100 105 110
Asp Ala Ala Thr Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr
115 120 125
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
130 135 140
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
145 150 155 160
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
165 170 175
Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
180 185 190
Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
195 200 205
Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
210 215 220
Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
225 230 235 240
Asn Arg Gly Glu Cys
245

<210> 363
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 363
Asp Thr Ala Thr Cys Tyr Thr Thr Thr Gly Trp Cys Glu Gly Met Val
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly Glu Ile Val Leu Thr Gln Ser Pro Asp Phe
        35   40   45
Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Ser Ala Asn
    50   55   60
Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser
65   70   75   80
Pro Lys Leu Trp Val His Gly Thr Ser Asn Leu Ala Ser Gly Val Pro
                85   90   95
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
            100   105   110
Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His His Trp
        115   120   125
Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
    130   135   140
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
145   150   155   160
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
                165   170   175
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
            180   185   190
Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
        195   200   205
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
    210   215   220
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
225   230   235   240
Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245   250

<210> 364
<211> 251
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 364
Asn Ser Asp Asn Cys Gly Pro Ala Lys Ser Thr Cys Met Tyr Asn Asp
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly Glu Ile Val Leu Thr Gln Ser Pro Asp Phe
        35   40   45
Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Ser Ala Asn
    50   55   60
Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln Gln Lys Pro Asp Gln Ser
65   70   75   80

```
Pro Lys Leu Trp Val His Gly Thr Ser Asn Leu Ala Ser Gly Val Pro
                85                  90                  95
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
            100                 105                 110
Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys His His Trp
        115                 120                 125
Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
    130                 135                 140
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
145                 150                 155                 160
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
                165                 170                 175
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
            180                 185                 190
Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
        195                 200                 205
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
    210                 215                 220
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
225                 230                 235                 240
Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245                 250
```

<210> 365
<211> 250
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 365

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

```
                165                 170                 175
Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
            180                 185                 190
Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
        195                 200                 205
Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
    210                 215                 220
His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
225                 230                 235                 240
Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
                245                 250
```

<210> 366
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 366

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

```
Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
            260                 265                 270
Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
        275                 280                 285
Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
    290                 295                 300
Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305                 310                 315                 320
Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
                325                 330                 335
Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
            340                 345                 350
Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
        355                 360                 365
Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
    370                 375                 380
Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385                 390                 395                 400
Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
                405                 410                 415
Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
            420                 425                 430
Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
        435                 440                 445
Gly Lys
    450


<210> 367
<211> 488
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 367
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1               5                  10                  15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20                  25                  30
Asn Pro Arg Ser Gly Gly Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
        35                  40                  45
Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr
    50                  55                  60
His Thr Ile Thr Ser Gly Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro
65                  70                  75                  80
Gly Lys Gly Met Glu Trp Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr
                85                  90                  95
Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Arg Asp Thr
            100                 105                 110
Ser Lys Asn Gln Phe Phe Leu Lys Leu Ser Ser Val Thr Ala Ala Asp
        115                 120                 125
Thr Ala Val Tyr Tyr Cys Ala Ser Met Met Val Pro His Tyr Tyr Val
```

```
    130                 135                 140
Met Asp Ala Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
145                 150                 155                 160
Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
                165                 170                 175
Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
            180                 185                 190
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
        195                 200                 205
His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
    210                 215                 220
Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
225                 230                 235                 240
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
                245                 250                 255
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
            260                 265                 270
Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
        275                 280                 285
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
    290                 295                 300
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
305                 310                 315                 320
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
                325                 330                 335
Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
            340                 345                 350
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
        355                 360                 365
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
    370                 375                 380
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
385                 390                 395                 400
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                405                 410                 415
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
            420                 425                 430
Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
        435                 440                 445
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
    450                 455                 460
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
465                 470                 475                 480
Ser Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 368
<211> 485
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 368

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

```
Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
            420                 425                 430
Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
        435                 440                 445
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
    450                 455                 460
Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
465                 470                 475                 480
Leu Ser Pro Gly Lys
                485
```

<210> 369
<211> 484
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 369

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

```
            260                 265                 270
Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
        275                 280                 285
Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Asp Val Ser
    290                 295                 300
His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
305                 310                 315                 320
Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
                325                 330                 335
Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
            340                 345                 350
Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
        355                 360                 365
Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
    370                 375                 380
Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
385                 390                 395                 400
Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
                405                 410                 415
Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
            420                 425                 430
Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
        435                 440                 445
Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
    450                 455                 460
Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
465                 470                 475                 480
Ser Pro Gly Lys
```

<210> 370
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 370

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

```
Phe Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
        115                 120                 125
Cys Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala Trp Gly
    130                 135                 140
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
145                 150                 155                 160
Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
                165                 170                 175
Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
            180                 185                 190
Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
        195                 200                 205
Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
    210                 215                 220
Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
225                 230                 235                 240
Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
                245                 250                 255
Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
            260                 265                 270
Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
        275                 280                 285
Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
    290                 295                 300
Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
305                 310                 315                 320
His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
                325                 330                 335
Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
            340                 345                 350
Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
        355                 360                 365
Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
    370                 375                 380
Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
385                 390                 395                 400
Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
                405                 410                 415
Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
            420                 425                 430
Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
        435                 440                 445
Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
    450                 455                 460
His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
465                 470                 475                 480
Pro Gly Lys
```

<210> 371
<211> 482
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 371
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
        35   40   45
Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr His Thr Ile Thr Ser Gly
    50   55   60
Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro Gly Lys Gly Met Glu Trp
65   70   75   80
Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu
                85   90   95
Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Phe
            100   105   110
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
        115   120   125
Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala Trp Gly Gln
    130   135   140
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
145   150   155   160
Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
                165   170   175
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
            180   185   190
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
        195   200   205
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
    210   215   220
Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
225   230   235   240
Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
                245   250   255
Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
            260   265   270
Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
        275   280   285
Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
    290   295   300
Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
305   310   315   320
Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
                325   330   335
Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
            340   345   350
Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
        355   360   365
Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
    370   375   380
Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu

385 390 395 400
Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
405 410 415
Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
420 425 430
Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
435 440 445
Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
450 455 460
Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
465 470 475 480
Gly Lys

<210> 372
<211> 485
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 372
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30
Ser Gly Gly Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
35 40 45
Pro Ser Glu Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr His Thr Ile
50 55 60
Thr Ser Gly Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro Gly Lys Gly
65 70 75 80
Met Glu Trp Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr Asn Tyr Asn
85 90 95
Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn
100 105 110
Gln Phe Phe Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val
115 120 125
Tyr Tyr Cys Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala
130 135 140
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
145 150 155 160
Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
165 170 175
Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
180 185 190
Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
195 200 205
Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
210 215 220
Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
225 230 235 240

```
Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
                245                 250                 255
Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
            260                 265                 270
Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
        275                 280                 285
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
    290                 295                 300
Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
305                 310                 315                 320
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
                325                 330                 335
Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
            340                 345                 350
Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
        355                 360                 365
Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
    370                 375                 380
Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln
385                 390                 395                 400
Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
                405                 410                 415
Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
            420                 425                 430
Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
        435                 440                 445
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
    450                 455                 460
Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
465                 470                 475                 480
Leu Ser Pro Gly Lys
                485
```

<210> 373
<211> 481
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 373

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

```
                85                  90                  95
Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
            100                 105                 110
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
        115                 120                 125
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
    130                 135                 140
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
145                 150                 155                 160
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
                165                 170                 175
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
            180                 185                 190
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
        195                 200                 205
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
    210                 215                 220
Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
225                 230                 235                 240
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
                245                 250                 255
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
            260                 265                 270
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
        275                 280                 285
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
    290                 295                 300
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
305                 310                 315                 320
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
                325                 330                 335
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
            340                 345                 350
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
        355                 360                 365
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
    370                 375                 380
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
385                 390                 395                 400
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
                405                 410                 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
            420                 425                 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
        435                 440                 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
    450                 455                 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465                 470                 475                 480
Lys
```

<210> 374

<211> 481
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 374
```
Ala Cys Pro Phe Pro Ala Lys Ile Leu Cys Gly Gly Gly Ser Ser Gly
 1               5                  10                  15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20                  25                  30
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
        35                  40                  45
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
    50                  55                  60
Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
65                  70                  75                  80
Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu Lys Phe
                85                  90                  95
Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
            100                 105                 110
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
        115                 120                 125
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
    130                 135                 140
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
145                 150                 155                 160
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
                165                 170                 175
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
            180                 185                 190
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
        195                 200                 205
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
    210                 215                 220
Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
225                 230                 235                 240
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
                245                 250                 255
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
            260                 265                 270
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
        275                 280                 285
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
    290                 295                 300
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
305                 310                 315                 320
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
                325                 330                 335
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
            340                 345                 350
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
        355                 360                 365
```

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
370 375 380
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
385 390 395 400
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
405 410 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
420 425 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
435 440 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
450 455 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465 470 475 480
Lys

<210> 375
<211> 481
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 375
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
1 5 10 15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
20 25 30
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
35 40 45
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
50 55 60
Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
65 70 75 80
Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu Lys Phe
85 90 95
Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
100 105 110
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
115 120 125
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
130 135 140
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
145 150 155 160
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
165 170 175
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
180 185 190
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
195 200 205
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser

```
    210                 215                 220
Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
225                 230                 235                 240
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
                245                 250                 255
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
            260                 265                 270
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
        275                 280                 285
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
    290                 295                 300
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
305                 310                 315                 320
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
                325                 330                 335
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
            340                 345                 350
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
        355                 360                 365
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
    370                 375                 380
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
385                 390                 395                 400
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
                405                 410                 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
            420                 425                 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
        435                 440                 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
    450                 455                 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465                 470                 475                 480
Lys
```

<210> 376
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 376

```
Asn Trp Leu Gly Glu Trp Leu Pro Pro Gly Lys Val Gly Gly Gly Ser
 1               5                  10                  15
Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser
            20                  25                  30
Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro
        35                  40                  45
Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr
    50                  55                  60
```

```
Asn Tyr Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu
65                  70                  75                  80
Trp Met Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu
                85                  90                  95
Lys Phe Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr
            100                 105                 110
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
        115                 120                 125
Tyr Cys Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly
    130                 135                 140
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
145                 150                 155                 160
Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
                165                 170                 175
Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
            180                 185                 190
Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
        195                 200                 205
Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
    210                 215                 220
Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
225                 230                 235                 240
Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
                245                 250                 255
Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
            260                 265                 270
Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
        275                 280                 285
Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
    290                 295                 300
Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
305                 310                 315                 320
His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
                325                 330                 335
Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
            340                 345                 350
Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
        355                 360                 365
Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
    370                 375                 380
Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
385                 390                 395                 400
Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
                405                 410                 415
Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
            420                 425                 430
Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
        435                 440                 445
Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
    450                 455                 460
His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
465                 470                 475                 480
Pro Gly Lys
```

<210> 377
<211> 487
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 377
Gln Phe Ile Glu Cys Pro Asn Phe Pro Arg Gln Cys Pro Gly Lys Asn
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
        35   40   45
Val Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly
    50   55   60
Tyr Thr Phe Thr Asn Tyr Phe Met Asn Trp Val Arg Gln Ala Pro Gly
65   70   75   80
Gln Gly Leu Glu Trp Met Gly Arg Val Asp Pro Glu Gln Gly Arg Ala
                85   90   95
Asp Tyr Ala Glu Lys Phe Lys Lys Arg Val Thr Ile Thr Ala Asp Lys
            100   105   110
Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
        115   120   125
Thr Ala Val Tyr Tyr Cys Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe
    130   135   140
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
145   150   155   160
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
                165   170   175
Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
            180   185   190
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
        195   200   205
Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
    210   215   220
Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
225   230   235   240
Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
                245   250   255
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
            260   265   270
Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        275   280   285
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    290   295   300
Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
305   310   315   320
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
                325   330   335
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp

```
            340                 345                 350
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
        355                 360                 365
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    370                 375                 380
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
385                 390                 395                 400
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                405                 410                 415
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            420                 425                 430
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        435                 440                 445
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
    450                 455                 460
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
465                 470                 475                 480
Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 378
<211> 487
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 378

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

```
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
        195                 200                 205
Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
    210                 215                 220
Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
225                 230                 235                 240
Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
                245                 250                 255
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
            260                 265                 270
Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        275                 280                 285
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    290                 295                 300
Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
305                 310                 315                 320
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
                325                 330                 335
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            340                 345                 350
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
        355                 360                 365
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    370                 375                 380
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
385                 390                 395                 400
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                405                 410                 415
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            420                 425                 430
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        435                 440                 445
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
    450                 455                 460
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
465                 470                 475                 480
Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 379
<211> 487
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 379

```
Val Trp Gln Glu Cys His Thr Ala Pro Gln Leu Cys Pro Gly Lys Ile
 1               5                  10                  15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20                  25                  30
Asn Pro Arg Ser Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
```

```
        35                  40                  45
Val Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly
    50                  55                  60
Tyr Thr Phe Thr Asn Tyr Phe Met Asn Trp Val Arg Gln Ala Pro Gly
65                  70                  75                  80
Gln Gly Leu Glu Trp Met Gly Arg Val Asp Pro Glu Gln Gly Arg Ala
                85                  90                  95
Asp Tyr Ala Glu Lys Phe Lys Lys Arg Val Thr Ile Thr Ala Asp Lys
            100                 105                 110
Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
        115                 120                 125
Thr Ala Val Tyr Tyr Cys Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe
    130                 135                 140
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
145                 150                 155                 160
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
                165                 170                 175
Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
            180                 185                 190
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
        195                 200                 205
Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
    210                 215                 220
Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
225                 230                 235                 240
Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
                245                 250                 255
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
            260                 265                 270
Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        275                 280                 285
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    290                 295                 300
Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
305                 310                 315                 320
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
                325                 330                 335
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            340                 345                 350
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
        355                 360                 365
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    370                 375                 380
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
385                 390                 395                 400
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                405                 410                 415
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            420                 425                 430
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        435                 440                 445
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
    450                 455                 460
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
```

465 470 475 480
Leu Ser Leu Ser Pro Gly Lys
485

<210> 380
<211> 449
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

```
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
                325                 330                 335
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
            340                 345                 350
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
        355                 360                 365
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
    370                 375                 380
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
385                 390                 395                 400
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
                405                 410                 415
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
            420                 425                 430
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
        435                 440                 445
Lys
```

<210> 381
<211> 482
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 381

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

```
        195                 200                 205
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
    210                 215                 220
Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
225                 230                 235                 240
Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
                245                 250                 255
Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
            260                 265                 270
Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
        275                 280                 285
Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
    290                 295                 300
Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
305                 310                 315                 320
Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
                325                 330                 335
Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
            340                 345                 350
Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
        355                 360                 365
Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
    370                 375                 380
Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
385                 390                 395                 400
Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
                405                 410                 415
Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
            420                 425                 430
Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
        435                 440                 445
Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
    450                 455                 460
Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
465                 470                 475                 480
Gly Lys
```

<210> 382
<211> 482
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 382

```
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1               5                  10                  15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro His Ser Gly Gly
            20                  25                  30
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
        35                  40                  45
```

```
Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr His Thr Ile Thr Ser Gly
    50                  55                  60
Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro Gly Lys Gly Met Glu Trp
65                  70                  75                  80
Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu
                85                  90                  95
Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Phe
            100                 105                 110
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
        115                 120                 125
Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala Trp Gly Gln
    130                 135                 140
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
145                 150                 155                 160
Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
                165                 170                 175
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
            180                 185                 190
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
        195                 200                 205
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
    210                 215                 220
Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
225                 230                 235                 240
Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
                245                 250                 255
Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
            260                 265                 270
Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
        275                 280                 285
Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
    290                 295                 300
Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
305                 310                 315                 320
Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
                325                 330                 335
Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
            340                 345                 350
Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
        355                 360                 365
Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
    370                 375                 380
Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
385                 390                 395                 400
Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
                405                 410                 415
Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
            420                 425                 430
Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
        435                 440                 445
Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
    450                 455                 460
Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
465                 470                 475                 480
```

Gly Lys

<210> 383
<211> 488
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 383
Asp Ser Tyr Thr Cys Arg Gly Pro Thr Trp Met Cys Ala Gly Asn Met
 1   5   10   15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
            20   25   30
Asn Pro Arg Ser Gly Gly Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
        35   40   45
Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr
    50   55   60
His Thr Ile Thr Ser Gly Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro
65   70   75   80
Gly Lys Gly Met Glu Trp Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr
                85   90   95
Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Arg Asp Thr
            100   105   110
Ser Lys Asn Gln Phe Phe Leu Lys Leu Ser Ser Val Thr Ala Ala Asp
        115   120   125
Thr Ala Val Tyr Tyr Cys Ala Ser Met Met Val Pro His Tyr Tyr Val
    130   135   140
Met Asp Ala Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
145   150   155   160
Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
                165   170   175
Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
            180   185   190
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
        195   200   205
His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
    210   215   220
Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
225   230   235   240
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
                245   250   255
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
            260   265   270
Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
        275   280   285
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
    290   295   300
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
305   310   315   320
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln

```
                325                 330                 335
Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
            340                 345                 350
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
        355                 360                 365
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
    370                 375                 380
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
385                 390                 395                 400
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                405                 410                 415
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
            420                 425                 430
Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
        435                 440                 445
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
    450                 455                 460
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
465                 470                 475                 480
Ser Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 384
<211> 488
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 384

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

```
Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
            180                 185                 190
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
        195                 200                 205
His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
    210                 215                 220
Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
225                 230                 235                 240
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
                245                 250                 255
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
            260                 265                 270
Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
        275                 280                 285
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
    290                 295                 300
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
305                 310                 315                 320
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
                325                 330                 335
Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
            340                 345                 350
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
        355                 360                 365
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
    370                 375                 380
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
385                 390                 395                 400
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                405                 410                 415
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
            420                 425                 430
Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
        435                 440                 445
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
    450                 455                 460
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
465                 470                 475                 480
Ser Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 385
<211> 482
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 385

```
Met Gln Thr Arg Cys Lys Glu Tyr Pro Arg Trp Cys Glu His Trp Leu
 1               5                  10                  15
Gly Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly Ser Gly Gly
```

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

```
    450                 455                 460
Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
465                 470                 475                 480
Gly Lys
```

<210> 386
<211> 488
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 386

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

```
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
305                 310                 315                 320
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
                325                 330                 335
Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
            340                 345                 350
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
        355                 360                 365
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
    370                 375                 380
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
385                 390                 395                 400
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                405                 410                 415
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
            420                 425                 430
Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
        435                 440                 445
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
    450                 455                 460
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
465                 470                 475                 480
Ser Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 387
<211> 488
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 387

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

```
145                 150                 155                 160
Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
                165                 170                 175
Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
            180                 185                 190
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
        195                 200                 205
His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
    210                 215                 220
Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
225                 230                 235                 240
Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
                245                 250                 255
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
            260                 265                 270
Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
        275                 280                 285
Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
    290                 295                 300
Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
305                 310                 315                 320
Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
                325                 330                 335
Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
            340                 345                 350
Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
        355                 360                 365
Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
    370                 375                 380
Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
385                 390                 395                 400
Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
                405                 410                 415
Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
            420                 425                 430
Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
        435                 440                 445
Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
    450                 455                 460
Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
465                 470                 475                 480
Ser Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 388
<211> 487
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 388

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

```
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        435                 440                 445
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
    450                 455                 460
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
465                 470                 475                 480
Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 389
<211> 484
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 389

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

```
        275                 280                 285
Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Asp Val Ser
    290                 295                 300
His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
305                 310                 315                 320
Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
                325                 330                 335
Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
            340                 345                 350
Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
        355                 360                 365
Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
    370                 375                 380
Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
385                 390                 395                 400
Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
                405                 410                 415
Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
            420                 425                 430
Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
        435                 440                 445
Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
    450                 455                 460
Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
465                 470                 475                 480
Ser Pro Gly Lys
```

<210> 390
<211> 484
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 390

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

```
Tyr Cys Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala Trp
    130                 135                 140
Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
145                 150                 155                 160
Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
                165                 170                 175
Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
            180                 185                 190
Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
        195                 200                 205
Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
    210                 215                 220
Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
225                 230                 235                 240
His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser
                245                 250                 255
Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
            260                 265                 270
Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
        275                 280                 285
Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
    290                 295                 300
His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
305                 310                 315                 320
Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
                325                 330                 335
Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
            340                 345                 350
Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
        355                 360                 365
Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
    370                 375                 380
Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
385                 390                 395                 400
Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
                405                 410                 415
Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
            420                 425                 430
Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
        435                 440                 445
Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
    450                 455                 460
Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
465                 470                 475                 480
Ser Pro Gly Lys
```

<210> 391
<211> 481
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 391

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

```
                405                 410                 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
            420                 425                 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
        435                 440                 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
    450                 455                 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465                 470                 475                 480
Lys
```

<210> 392
<211> 481
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 392

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

```
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
            260                 265                 270
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
        275                 280                 285
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
    290                 295                 300
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
305                 310                 315                 320
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
                325                 330                 335
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
            340                 345                 350
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
        355                 360                 365
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
    370                 375                 380
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
385                 390                 395                 400
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
                405                 410                 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
            420                 425                 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
        435                 440                 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
    450                 455                 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465                 470                 475                 480
Lys
```

<210> 393
<211> 481
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 393

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

```
            100                 105                 110
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
        115                 120                 125
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
    130                 135                 140
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
145                 150                 155                 160
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
                165                 170                 175
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
            180                 185                 190
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
        195                 200                 205
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
    210                 215                 220
Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
225                 230                 235                 240
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
                245                 250                 255
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
            260                 265                 270
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
        275                 280                 285
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
    290                 295                 300
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
305                 310                 315                 320
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
                325                 330                 335
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
            340                 345                 350
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
        355                 360                 365
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
    370                 375                 380
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
385                 390                 395                 400
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
                405                 410                 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
            420                 425                 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
        435                 440                 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
    450                 455                 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465                 470                 475                 480
Lys
```

<210> 394
<211> 481
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 394
Ala Cys Thr Lys Pro Ala Lys Ala Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn Pro Arg Ser Gly Gly
            20   25   30
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
        35   40   45
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
    50   55   60
Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
65   70   75   80
Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu Lys Phe
                85   90   95
Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
            100   105   110
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
        115   120   125
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
    130   135   140
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
145   150   155   160
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
                165   170   175
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
            180   185   190
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
        195   200   205
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
    210   215   220
Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
225   230   235   240
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
                245   250   255
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
            260   265   270
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
        275   280   285
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
    290   295   300
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
305   310   315   320
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
                325   330   335
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
            340   345   350
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
        355   360   365
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
    370   375   380

```
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
385                 390                 395                 400
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
                405                 410                 415
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
            420                 425                 430
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
        435                 440                 445
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
    450                 455                 460
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465                 470                 475                 480
Lys
```

<210> 395
<211> 487
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 395

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

225 230 235 240
Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
245 250 255
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
260 265 270
Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
275 280 285
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
290 295 300
Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
305 310 315 320
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
325 330 335
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
340 345 350
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
355 360 365
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
370 375 380
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
385 390 395 400
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
405 410 415
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
420 425 430
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
435 440 445
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
450 455 460
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
465 470 475 480
Leu Ser Leu Ser Pro Gly Lys
485

<210> 396
<211> 487
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 396
Asn Ser Asp Asn Cys Gly Pro Ala Lys Ser Thr Cys Met Tyr Asn Asp
1 5 10 15
Gly Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala
20 25 30
Asn Pro Arg Ser Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
35 40 45
Val Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly
50 55 60
Tyr Thr Phe Thr Asn Tyr Phe Met Asn Trp Val Arg Gln Ala Pro Gly
65 70 75 80

```
Gln Gly Leu Glu Trp Met Gly Arg Val Asp Pro Glu Gln Gly Arg Ala
                85                  90                  95
Asp Tyr Ala Glu Lys Phe Lys Lys Arg Val Thr Ile Thr Ala Asp Lys
            100                 105                 110
Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
        115                 120                 125
Thr Ala Val Tyr Tyr Cys Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe
    130                 135                 140
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
145                 150                 155                 160
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
                165                 170                 175
Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
            180                 185                 190
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
        195                 200                 205
Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
    210                 215                 220
Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
225                 230                 235                 240
Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
                245                 250                 255
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
            260                 265                 270
Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        275                 280                 285
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    290                 295                 300
Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
305                 310                 315                 320
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
                325                 330                 335
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            340                 345                 350
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
        355                 360                 365
Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    370                 375                 380
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
385                 390                 395                 400
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                405                 410                 415
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            420                 425                 430
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        435                 440                 445
Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
    450                 455                 460
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
465                 470                 475                 480
Leu Ser Leu Ser Pro Gly Lys
                485
```

<210> 397
<211> 486
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 397
Pro Pro Gly Lys Cys Thr Gln Pro His Arg Cys Pro Pro Leu Asn Gly
 1   5   10   15
Gly Gly Ser Ser Gly Gly Ser Thr Ser Thr Ser Gly Arg Ser Ala Asn
            20   25   30
Pro Arg Ser Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val
        35   40   45
Lys Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr
    50   55   60
Thr Phe Thr Asn Tyr Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln
65   70   75   80
Gly Leu Glu Trp Met Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp
                85   90   95
Tyr Ala Glu Lys Phe Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser
            100   105   110
Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr
        115   120   125
Ala Val Tyr Tyr Cys Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala
    130   135   140
Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys
145   150   155   160
Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
                165   170   175
Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
            180   185   190
Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
        195   200   205
Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
    210   215   220
Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn
225   230   235   240
Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro
                245   250   255
Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
            260   265   270
Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
        275   280   285
Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
    290   295   300
Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
305   310   315   320
Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
                325   330   335
Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
            340   345   350
Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro

```
        355                 360                 365
Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
    370                 375                 380
Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
385                 390                 395                 400
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
                405                 410                 415
Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
            420                 425                 430
Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
        435                 440                 445
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
    450                 455                 460
Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
465                 470                 475                 480
Ser Leu Ser Pro Gly Lys
                485
```

<210> 398
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 398
Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
 1   5

<210> 399
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 399
Asp Tyr Lys Asp Asp Asp Asp Lys
 1   5

<210> 400
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 400

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 401
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 401
Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
1 5 10 15

<210> 402
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 402
Gln Ser Leu Leu Asn Ser Asp Gly Asn Thr Tyr
1 5 10

<210> 403
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 403
Leu Val Ser
1

<210> 404
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 404
Val Gln Gly Thr His Asp Pro
1 5

<210> 405
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 405
Tyr His Thr Ile Thr Ser Gly Tyr
 1   5

<210> 406
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 406
Ile Ser Tyr Ser Gly Asn Thr
 1   5

<210> 407
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 407
Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala
 1   5   10

<210> 408
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 408
Ser Ala Leu Ser Tyr Met
 1   5

<210> 409

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

<220>
<223> Synthetic Construct

<400> 409
Gly Thr Ser
 1

<210> 410
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 410
His His Trp Ser Asn Thr Gln
 1   5

<210> 411
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 411
Gly Tyr Thr Phe Thr Asn Tyr Phe
 1   5

<210> 412
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 412
Val Asp Pro Glu Gln Gly Arg Ala Asp
 1   5

<210> 413
<211> 11
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 413
Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr
 1   5   10

<210> 414
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 414
Gly Ser Gly Gly Ser Gly
 1   5

<210> 415
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 415
Gly Gly Ser Gly Gly Ser
 1   5

<210> 416
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 416
Gly Gly Pro Gly Ser Ser Pro
 1   5

<210> 417
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 417
Gly Gly Ser Ser Pro Pro
 1   5

<210> 418
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 418
Ser Ser Pro Ser Pro Ser Gly Gly
 1   5

<210> 419
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 419
Gly Ser Pro Gly Ser Pro
 1   5

<210> 420
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 420
Ser Ser Gly Gly Ser Gly Pro
 1   5

<210> 421
<211> 449
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 421
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Phe Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu Lys Phe
    50   55   60
Lys Lys Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
        115   120   125
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
    130   135   140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145   150   155   160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
                165   170   175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
            180   185   190
Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
        195   200   205
Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
    210   215   220
Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
225   230   235   240
Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
                245   250   255
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
            260   265   270
Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
        275   280   285
Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
    290   295   300
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
305   310   315   320
Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Glu Glu Lys
                325   330   335
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
            340   345   350
Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
        355   360   365
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
    370   375   380
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
385   390   395   400
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
                405   410   415
Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu

```
            420                 425                 430
Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
        435                 440                 445
Lys
```

<210> 422
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 422

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

<210> 423
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 423
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Gly Gly Ser Gly Gly Ser Gly Ser Gly Gly Glu Ile Val Leu
            20   25   30
Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr
        35   40   45
Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln
    50   55   60
Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn
65   70   75   80
Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr
                85   90   95
Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr
            100   105   110
Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly
        115   120   125
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
    130   135   140
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
145   150   155   160
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
                165   170   175
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
            180   185   190
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
        195   200   205
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
    210   215   220
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225   230   235   240
Cys

<210> 424
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 424
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Ser Gly Gly Ser
 1   5   10   15
Val Pro Leu Ser Leu Tyr Ser Gly Gly Glu Ile Val Leu Thr Gln Ser
            20   25   30
Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile Thr Cys
        35   40   45

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


<210> 425
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 425
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Pro Gly Ser Ser
 1               5                  10                  15
Pro Met Pro Tyr Asp Leu Tyr His Pro Ser Gly Gly Glu Ile Val Leu
            20                  25                  30
Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr
        35                  40                  45
Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln
    50                  55                  60
Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn
65                  70                  75                  80
Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr
                85                  90                  95
Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr
            100                 105                 110
Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly
        115                 120                 125
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
    130                 135                 140
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
```

```
145                 150                 155                 160
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
                165                 170                 175
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
            180                 185                 190
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
        195                 200                 205
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
    210                 215                 220
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225                 230                 235                 240
Cys
```

<210> 426
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 426

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

<210> 427
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 427
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Gly Gly Ser Gly Gly Ser Gly Ser Gly Gly Glu Ile Val Leu
            20   25   30
Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr
        35   40   45
Ile Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln
    50   55   60
Gln Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn
65   70   75   80
Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr
                85   90   95
Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr
            100   105   110
Tyr Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly
        115   120   125
Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
    130   135   140
Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
145   150   155   160
Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
                165   170   175
Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
            180   185   190
Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
        195   200   205
Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
    210   215   220
His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225   230   235   240
Cys

<210> 428
<211> 242
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 428

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

<210> 429
<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 429

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

```
                85                  90                  95
Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr
            100                 105                 110
Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr
        115                 120                 125
Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
    130                 135                 140
Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145                 150                 155                 160
Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
                165                 170                 175
Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
            180                 185                 190
Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
        195                 200                 205
Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
    210                 215                 220
Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225                 230                 235                 240


<210> 430
<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 430
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Ser Ser Pro Pro
 1               5                  10                  15
Thr Ser Val Leu Met Ala Ala Pro Ser Gly Gly Glu Ile Val Leu Thr
            20                  25                  30
Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys Glu Lys Val Thr Ile
        35                  40                  45
Thr Cys Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr Trp Tyr Gln Gln
    50                  55                  60
Lys Pro Asp Gln Ser Pro Lys Leu Trp Val His Gly Thr Ser Asn Leu
65                  70                  75                  80
Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
                85                  90                  95
Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr
            100                 105                 110
Tyr Cys His His Trp Ser Asn Thr Gln Trp Thr Phe Gly Gly Gly Thr
        115                 120                 125
Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
    130                 135                 140
Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145                 150                 155                 160
Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
                165                 170                 175
Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
            180                 185                 190
```

```
Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
        195                 200                 205
Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
    210                 215                 220
Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225                 230                 235                 240
```

<210> 431
<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 431

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

<210> 432
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 432
Arg Ser Ser Gln Ser Leu Leu Asn Ser Asp Gly Asn Thr Tyr Leu Tyr
 1   5   10   15

<210> 433
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 433
Leu Val Ser Lys Leu Gly Ser
 1   5

<210> 434
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 434
Val Gln Gly Thr His Asp Pro Trp Thr
 1   5

<210> 435
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 435
Ser Gly Tyr Asp Trp Thr
 1   5

<210> 436
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 436
Tyr Ile Ser Tyr Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 437
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 437
Met Met Val Pro His Tyr Tyr Val Met Asp Ala
 1   5   10

<210> 438
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 438
Ser Ala Asn Ser Ala Leu Ser Tyr Met Tyr
 1   5   10

<210> 439
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 439
Gly Thr Ser Asn Leu Ala Ser
 1   5

<210> 440
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 440

His His Trp Ser Asn Thr Gln Trp Thr
 1   5

<210> 441
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 441
Asn Tyr Phe Met Asn
 1   5

<210> 442
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 442
Arg Val Asp Pro Glu Gln Gly Arg Ala Asp Tyr Ala Glu Lys Phe Lys
 1   5   10   15
Lys

<210> 443
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 443
Arg Ala Met Asp Asn Tyr Gly Phe Ala Tyr
 1   5   10

<210> 444
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 444
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Ser Ser Gly Gly Ser Gly

```
 1               5                  10                  15
Pro Asp Ser Gly Gly Phe Met Leu Thr Ser Gly Gly
            20                  25


<210> 445
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 445
Ala Cys Pro Gly Lys Gly Leu Pro Ser Cys Gly Gly Gly Ser Ser Gly
 1               5                  10                  15
Gly Ser Gly Gly Ser Gly Gly Ser Gly Ser Gly Gly
            20                  25


<210> 446
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 446
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Ser Gly Gly Ser
 1               5                  10                  15
Val Pro Leu Ser Leu Tyr Ser Gly Gly
            20                  25


<210> 447
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 447
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Pro Gly Ser Ser
 1               5                  10                  15
Pro Met Pro Tyr Asp Leu Tyr His Pro Ser Gly Gly
            20                  25


<210> 448
<211> 25
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Synthetic Construct

<400> 448
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Ser Ser Pro Pro
 1   5   10   15
His Glu Gln Leu Thr Val Ser Gly Gly
            20   25

<210> 449
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 449
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Gly Ser Ser Gly
 1   5   10   15
Gly Ser Gly Gly Ser Gly Gly Ser Gly Ser Gly Gly
            20   25

<210> 450
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 450
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Ser Ser Pro Ser Pro Ser
 1   5   10   15
Gly Gly Gly Gly Ile Gly Gln Leu Thr Ala Ser Gly Gly
            20   25

<210> 451
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 451
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Ser Ser Pro Pro
 1   5   10   15
Arg Ala Ala Ala Val Lys Ser Pro Ser Gly Gly
            20   25

<210> 452
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 452
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Gly Ser Ser Pro Pro
 1   5   10   15
Thr Ser Val Leu Met Ala Ala Pro Ser Gly Gly
            20   25

<210> 453
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 453
Ala Cys Pro Phe Pro Ala Leu Glu Leu Cys Gly Ser Pro Gly Ser Pro
 1   5   10   15
Lys Pro Ile Leu Phe Phe Arg Leu Ser Gly Gly
            20   25

<210> 454
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 454
Gly Gly Gly Ser Ser Gly Gly Ser Gly Val Pro Leu Ser Leu Tyr Ser
 1   5   10   15
Gly Gly

<210> 455
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 455
Ser Ser Gly Gly Ser Gly Pro Asp Ser Gly Gly Phe Met Leu Thr Ser
 1   5   10   15
Gly Gly

<210> 456
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 456
Gly Gly Ser Gly Gly Ser Val Pro Leu Ser Leu Tyr Ser Gly Gly
 1   5   10   15

<210> 457
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 457
Gly Gly Pro Gly Ser Ser Pro Met Pro Tyr Asp Leu Tyr His Pro Ser
 1   5   10   15
Gly Gly

<210> 458
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 458
Gly Gly Ser Ser Pro Pro His Glu Gln Leu Thr Val Ser Gly Gly
 1   5   10   15

<210> 459
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 459
Ser Ser Pro Ser Pro Ser Gly Gly Gly Gly Ile Gly Gln Leu Thr Ala
 1   5   10   15
Ser Gly Gly

<210> 460
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 460
Gly Gly Ser Ser Pro Pro Arg Ala Ala Ala Val Lys Ser Pro Ser Gly
 1   5   10   15
Gly

<210> 461
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 461
Gly Gly Ser Ser Pro Pro Thr Ser Val Leu Met Ala Ala Pro Ser Gly
 1   5   10   15
Gly

<210> 462
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 462
Gly Ser Pro Gly Ser Pro Lys Pro Ile Leu Phe Phe Arg Leu Ser Gly
 1   5   10   15
Gly

<210> 463
<211> 329
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 463
Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser
 1   5   10   15
Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe
            20   25   30
Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly
        35   40   45
Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
    50   55   60
Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr
65   70   75   80
Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys
                85   90   95
Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
            100   105   110
Ala Pro Glu Leu Leu Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys
        115   120   125
Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
    130   135   140
Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
145   150   155   160
Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
                165   170   175
Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
            180   185   190
Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
        195   200   205
Ala Leu Pro Ala Pro Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
    210   215   220
Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
225   230   235   240
Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
                245   250   255
Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
            260   265   270
Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
        275   280   285
Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
    290   295   300
Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
305   310   315   320
Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325

<210> 464
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 464
Ile Ser Ser Gly Leu Leu Ser Gly Arg Ser Asp Asn His
 1   5   10

<210> 465
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 465
Ala Val Gly Leu Leu Ala Pro Pro Gly Gly Leu Ser Gly Arg Ser Asp
 1   5   10   15
Asn His

<210> 466
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 466
Val Pro Leu Ser Leu Tyr Ser Gly
 1   5

<210> 467
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 467
Arg Gln Ala Arg Val Val Gly
 1   5

<210> 468
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 468
Leu Ser Gly Arg Ser Asn Ala Met Pro Tyr Asp Leu Tyr His Pro
 1   5   10   15

<210> 469
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 469
Met Pro Tyr Asp Leu Tyr His Pro Arg Gln Ala Arg Val Val Gly
 1   5   10   15

<210> 470
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 470
Lys Ile Ser Ser Gly Leu Leu Ser Gly Arg Ser Asp Asn His
 1   5   10

<210> 471
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 471
Arg Ala Val Gly Leu Leu Ala Pro Pro Gly Gly Leu Ser Gly Arg Ser
 1   5   10   15
Asp Asn His

<210> 472
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 472
Arg Gly Gly Val Pro Leu Ser Leu Tyr Ser Gly Gly Gly Lys
 1   5   10

<210> 473
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 473
Arg Gly Gly Met Pro Tyr Asp Leu Tyr His Pro Gly Gly Lys
 1   5   10

<210> 474
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 474
Arg Gly Gly Asp Ser Gly Gly Phe Met Leu Thr Gly Gly Lys
 1   5   10

<210> 475
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 475
Arg Gly Ser Gly His Glu Gln Leu Thr Val Gly Gly Ser Lys
 1   5   10

<210> 476
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 476
Gly Ser Gly Arg Ala Ala Ala Val Lys Ser Pro Gly Ser Lys
 1   5   10

<210> 477
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 477
Gly Ser Gly Arg Gln Ala Arg Val Val Gly Gly Gly Ser Lys
 1   5   10

<210> 478
<211> 450
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 478
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ser Val Thr Tyr His Thr Ile Thr Ser Gly
            20   25   30
Tyr Asp Trp Thr Trp Ile Arg Lys Pro Pro Gly Lys Gly Met Glu Trp
        35   40   45
Ile Gly Tyr Ile Ser Tyr Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn Gln Phe Phe
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Ser Met Met Val Pro His Tyr Tyr Val Met Asp Ala Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
        115   120   125
Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
    130   135   140
Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145   150   155   160
Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val

```
                165                 170                 175
Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
            180                 185                 190
Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
        195                 200                 205
Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
    210                 215                 220
Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225                 230                 235                 240
Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
                245                 250                 255
Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
            260                 265                 270
Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
        275                 280                 285
Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
    290                 295                 300
Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305                 310                 315                 320
Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Glu Glu
                325                 330                 335
Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
            340                 345                 350
Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
        355                 360                 365
Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
    370                 375                 380
Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385                 390                 395                 400
Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
                405                 410                 415
Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
            420                 425                 430
Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
        435                 440                 445
Gly Lys
    450


<210> 479
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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<210> 489
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1 5 10 15

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<400> 508
Thr Ser Val Leu Met Ala Ala Pro Leu Ser Gly Arg Ser Asn Ala
 1   5   10   15