SEQUENCE LISTING

<110> MEMORIAL SLOAN-KETTERING CANCER CENTER
EUREKA THERAPEUTICS, INC.

<120> ANTIBODIES TARGETING G-PROTEIN COUPLED RECEPTOR AND METHODS OF USE

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<150> 62/088,228
<151> 2014-12-05

<160> 415

<170> PatentIn version 3.5

<210> 1
<211> 120
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 2
<211> 111

<212> PRT
<213> Artificial Sequence

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

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

Lys Val Thr Ile Pro Cys Ser Gly Ser Arg Ser Asn Val Gly Asn Tyr
20 25 30

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

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

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

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

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

<210> 3
<211> 360
<212> DNA
<213> Artificial Sequence

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

<400> 3
caggtgcagc tggtgcagtc tgggtctgag ttgaagaagc ctggggcctc agtcagagtc 60

tcctgcacgg cttctggata caccttcacc agttactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggagta atcaacccta atgctggcag cacaagatac 180

gcacagaaat tccagggcag agtcaccatg agcactgaca cgtccacgag cacagcctac 240

atggacctga gcagtctgag atctgaggac acggccgtgt attactgtgc gcgcggtatg 300

taccgttctc tgctgttcta cgatccgtgg ggtcaaggta ctctggtgac cgtctcctca 360

<210> 4
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 4
cagtctgtgt tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60

ccctgctctg gaagccgttc caacgttggg aattattatg tgtcctggta ccagcaactc 120

ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180

gaccgattct ctggctccaa gtctggcacg tcagccaccc tgggcatcac cggactccag 240

actggggacg aggccgatta tttctgcgga acatgggatg gcagcctgag tgcccatgtc 300

ttcggaactg ggaccaaggt caccgtccta ggt 333

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

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

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

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

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

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

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

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

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

Thr Val Ser Ser
115

<210> 6
<211> 113
<212> PRT
<213> Artificial Sequence

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

<400> 6
Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Phe Gln Gln Arg Pro Gly Ser Ala Pro Thr Thr Val
35 40 45

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

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

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

Asp Ser Ser Asn Val Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

Gly

<210> 7
<211> 348
<212> DNA
<213> Artificial Sequence

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

<400> 7
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttagc aactatgcca tgagttgggt ccgccaggct 120

ccagggaagg gactggagtg ggtctcagct attagtggta gtggtaacac atactacgca 180

gactccgtga agggccggtt caccatctcc agagacaatt ccaagaacac gctgtatctg 240

caaatgaaca gcctgagagc cgaggacacg gccgtatatt actgtgcgcg cggttctgtt 300

cgttacactg atatctgggg tcaaggtact ctggtgaccg tctcctca 348

<210> 8
<211> 339
<212> DNA

<213> Artificial Sequence

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

<400> 8
aattttatgc tgactcagcc ccactcagtg tcggagtctc cggggaagac ggtaagcatc 60

tcctgcaccc gcaccagtgg cgccattgcc ggcgcctatg tgcagtggtt ccagcagcgc 120

ccgggcagtg cccccaccac tgtgatctat gacgataaca aaagaccctc tggggtccct 180

gatcggttct ctgggtccat cgacaagtcc tccaactctg cctccctcac catctctgga 240

ctgaagactg aggacgaggc tgactattat tgtcagtctt atgattatga tagcagcaat 300

gtgctattcg gcggagggac caagctgacc gtcctaggt 339

<210> 9
<211> 119
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 10
<211> 108

<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

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

<210> 11
<211> 357
<212> DNA
<213> Artificial Sequence

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

<400> 11
gaggtgcagc tggtgcagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60

tcctgtgcaa cctctggatt cacctttaat aactattgga tgagttgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtggccaac ataaagcaag atggaagtga gaaatactac 180

gcggactctg tgaggggccg attcaccatc tccagagaca acgccaagaa ctcactgtct 240

ctgcaattga acaacctgag agccgaggac acggccgtgt attactgtgc gcgctctatg 300

tctactgctt ggggttacga tgaatggggt caaggtactc tggtgaccgt ctcctca 357

<210> 12
<211> 324
<212> DNA
<213> Artificial Sequence

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

<400> 12
gacatccagt tgacccagtc tccatcctcc ctgtctgcat ctgtcggaga cagagtcacc 60

atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca acagaaacca 120

gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240

gcagattttg caacttacta ctgtcaacag agttacagtg tcccgtacac ttttggccag 300

gggaccaagc tggagatcaa acgt 324

<210> 13
<211> 121
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 14
<211> 111
<212> PRT
<213> Artificial Sequence

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

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

Asn Phe Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Val
35 40 45

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Ile Ser Asn Arg Phe
50 55 60

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

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

Arg Thr Val Ile Phe Ala Gly Gly Thr Lys Val Thr Val Leu Gly
100 105 110

<210> 15
<211> 363
<212> DNA
<213> Artificial Sequence

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

<400> 15
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta gtggtggtag cacaaggtac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtcaacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcggttct 300

tctcgctggg gtggttggac tggtgattac tggggtcaag gtactctggt gaccgtctcc 360

tca 363

<210> 16
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 16
caatctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact ttgtctcctg gtaccaacag 120

cacccaggca aagcccccaa agtcatgatt tatgatgtca gtaagcggcc ctcagggatt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggttgagg acgaggctga tattactgc agctcatata caagcactag aactgtgata 300

ttcgccggag ggaccaaggt caccgtccta ggt 333

<210> 17
<211> 117
<212> PRT
<213> Artificial Sequence

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

<400> 17
Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 18
<211> 111
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (37)..(37)
<223> Any amino acid

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

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

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

Ile Tyr Arg Asn His Gln Trp Pro Ser Gly Val Pro Asp Arg Phe Thr
50 55 60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Asn Leu
85 90 95

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

<210> 19
<211> 351
<212> DNA
<213> Artificial Sequence

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

<400> 19
gaggtgcagc tggtggagac tgggggaggc ttggtacagc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatc cacctttagc agctatgcca tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcagct attagtggtc gtggtcgtag cacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gcgctactac 300

aaatcttcta aagatcattg gggtcaaggt actctggtga ccgtctcctc a 351

<210> 20

<211> 333
<212> DNA
<213> Artificial Sequence

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

<220>
<221> modified_base
<222> (109)..(109)
<223> a, c, t, g, unknown or other

<400> 20
cagtctgtgt tgacgcagcc gccctcactg tctggggccc cagggcagag ggtcaccatc 60

tcttgttccg gaagcaggtc caacatcgga actaattatg tatcctggna ccagcaactc 120

ccaggaacgg cccccaaact cctcatctat aggaatcatc agtggccctc aggggtccct 180

gaccgattca ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ctactgtgca gcatgggatg acaatttgag tggtgtggtg 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 21
<211> 121
<212> PRT
<213> Artificial Sequence

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

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

Ser Val Arg Val Ser Cys Lys Ala Ile Ala Tyr Thr Phe Thr Asp Tyr
20 25 30

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

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

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 22
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 22
Gln Ala Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

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

<210> 23
<211> 363
<212> DNA
<213> Artificial Sequence

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

<400> 23
caggtccagc tggtgcagtc tggggctgag gtgcagaggc ctggggcctc agtgagggtc 60

tcctgcaagg ctattgcgta caccttcacc gactactata tccactgggt gcgacaggcc 120

cctggacaag ggcctgagtg gatggggtgg atcaacccta aaagtggtcg cacacagtat 180

gcaccgaagt ttcaagacag ggtcaccctg gccagggaga cgcccatcag cacagcctcc 240

atggagctgc gcggactgac atctgacgac acggccgtgt attactgtgc gcgcgtttac 300

ggttactctc gttggtctgg tttcgatctg tggggtcaag gtactctggt gaccgtctcc 360

tca 363

<210> 24
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 24
caggctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60

tcttgttctg gaagcagctc caacatcgga agtaattatg tatactggta ccagcagctc 120

ccaggaacgg cccccaaact cctcatctat aggaataatc agcggccctc aggggtccct 180

gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag tggttatgtc 300

ttcggaactg ggaccaaggt caccgtccta ggt 333

<210> 25
<211> 124
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

Ala Arg Gly His Lys Val Tyr Lys Ser His Pro Thr Gly Gly Tyr Asp
100 105 110

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

<210> 26
<211> 111
<212> PRT
<213> Artificial Sequence

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

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

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

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

Met Ile Tyr Glu Val Ser Lys Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

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

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

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

<210> 27
<211> 372
<212> DNA
<213> Artificial Sequence

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

<400> 27
caggtgcagc tggtgcaatc tggggctgag gtgaagcagc ctggggcctc agtgaaggtt 60

tcctgccagg catctggata caccttcacc acttattata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta atggtggtgg cacattctac 180

gcacagaagt tccaggacag agtcaccatg accagggaca cgtccacggg cacagtctac 240

atggaactga gcagcctgag atctgacgac actgccgtgt attactgtgc gcgcggtcat 300

aaagtttaca aatctcatcc gactggtggt tacgatcgtt ggggtcaagg tactctggtg 360

accgtctcct ca 372

<210> 28
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 28
caatctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagccg tgacgttggt ggttataact atgtctcctg gtaccaacag 120

tacccaggca aagcccccaa actcatgatt tatgaggtca gtaagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggctgagg acgaggctga ttattactgc agctcatata ccagtagcag cactttagac 300

ttcggaactg ggaccaaggt caccgtccta ggt 333

<210> 29
<211> 119
<212> PRT
<213> Artificial Sequence

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

<400> 29
Glu 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 Gly Thr Phe Ser Ser Tyr
20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Lys Tyr Ala Gln Lys Phe
50 55 60

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

Thr Leu Val Thr Val Ser Ser
        115

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

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

<400> 30
Ser Tyr Glu Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1   5   10   15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
                85   90   95

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

<210> 31
<211> 357
<212> DNA
<213> Artificial Sequence

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

<400> 31
gaggtccagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc   60

tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc   120

cctggacaag ggcttgagtg gatgggaggg attatcccta tctttggtac agcaaaatat   180

gcacagaagt tccagggcag agtcacgatt accgcggacg aatccacgag cacagcctac   240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgctctcat   300

gttgcttggt ctctgctgga ttactggggt caaggtactc tggtgaccgt ctcctca 357

<210> 32
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 32
tcctatgagc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60

tcttgttctg gaagcagctc caacatcgga agtaattatg tatcctggta ccagcagctc 120

ccaggaacgg cccccaaact cctcatctat aggaataatc agcggccctc aggggtccct 180

gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag tggtgtggta 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 33
<211> 120
<212> PRT
<213> Artificial Sequence

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

<400> 33
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 Gly Thr Phe Ser Ser Tyr
20 25 30

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 34
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 34
Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

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

<210> 35
<211> 360
<212> DNA
<213> Artificial Sequence

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

<400> 35
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc agtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atgaacccta acagtggtaa cacaggctat 180

gcacagaagt tccagggcag agtcaccatg accaggaaca cctccataag cacagcctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgctaccag 300

tcttacaaag gttctcagtc tgattcttgg ggtcaaggta ctctggtgac cgtctcctca 360

<210> 36
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 36
cagtctgtgt tgacgcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60

tcttgttctg gaagcagctc caacatcgga agtaattatg tatactggta ccagcagctc 120

ccaggaacgg cccccaaact cctcatctat aggaataatc agcggccctc aggggtccct 180

gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag tggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 37
<211> 127
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val 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 Gly Gly Ser Lys Lys Trp Ser Gly Glu Lys Trp Arg Arg Glu
100 105 110

Asn Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 38
<211> 111
<212> PRT
<213> Artificial Sequence

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

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

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

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Arg Ser
85 90 95

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

<210> 39
<211> 381
<212> DNA
<213> Artificial Sequence

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

<400> 39
gaggtccagc tggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta gtggtggtag cacaagctac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcggtggt 300

tctaaaaaat ggtctggtga aaaatggcgt cgtgaaaact tcgattactg gggtcaaggt 360

actctggtga ccgtctcctc a 381

<210> 40
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 40
caatctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacag 120

cacccaggca aagcccccaa actcatgatt tatgatgtca gtaagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggctgagg acgaggctga ttattactgc agctcatata caagaagcag cactgaggta 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 41
<211> 113
<212> PRT
<213> Artificial Sequence

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

<400> 41
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Glu Tyr Thr Phe Thr Arg His
20 25 30

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

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

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

Ser

<210> 42
<211> 110
<212> PRT
<213> Artificial Sequence

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

<400> 42
Ser Tyr Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

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

<210> 43
<211> 339
<212> DNA
<213> Artificial Sequence

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

<400> 43
cagatgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg cttctgaata caccttcact aggcatattc tacattgggt gcgccaggct 120

cccggacaaa gccttgagtg gatgggatgg atcaacccag gcaatggtaa tacaaaatat 180

tcacagaagt tccaggtcag agtcaccttt accagggaca catccgcgag cacagtctat 240

atggagctga gcagcctgag atctgaagac acggccgtgt attactgtgc gcgcctgccg 300

gatcagtggg gtcaaggtac tctggtgacc gtctcctca 339

<210> 44

<211> 330
<212> DNA
<213> Artificial Sequence

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

<400> 44
tcctatgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60

tcttgttctg gaagcagctc caacatcgga agtaatactg taaactggta ccagcagctc 120

ccaggaacgg cccccaaact cctcatctat aggaataatc agcggccctc aggggtccct 180

gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcag tgggctccgg 240

tccgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag tggtctcttc 300

ggaactggga ccaaggtcac cgtcctaggt 330

<210> 45
<211> 114
<212> PRT
<213> Artificial Sequence

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

<400> 45
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Ser Ser

<210> 46
<211> 112
<212> PRT
<213> Artificial Sequence

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

<400> 46
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

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

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

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

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

Gln Ala Asp Asp Glu Ala Val Tyr Tyr Cys Ser Ser Tyr Gly Gly Ser
85 90 95

Asn Asn Phe Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 47
<211> 342
<212> DNA
<213> Artificial Sequence

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

<400> 47
gaggtgcagc tggtggagtc tgggggaggt gtggtacggc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttggt gattatggca tgagctgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt attaattgga atggtggtag cacaggttat 180

gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccgtat attactgtgc gcgctctaaa 300

caggattact ggggtcaagg tactctggtg accgtctcct ca 342

<210> 48
<211> 336
<212> DNA

<213> Artificial Sequence

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

<400> 48
cagtctgccc tgactcagcc tccctccgcg tccgggtctc ctggacagtc agtcaccatc 60

tcctgcactg gaaccagcag ggacgctggt ggttataatt atttctcctg gtaccaacaa 120

cacccaggca aagcccccaa actcctgatt tatgaggtca ctaagcggcc ctcaggggtc 180

cctgatcgct tctctggctc caagtctggc aagacggcct ccctgaccgt ctctgggctc 240

caggctgacg atgaggctgt atattactgc agctcatatg gaggcagcaa caactttcgg 300

gtgttcggcg gagggaccaa gctgaccgtc ctaggt 336

<210> 49
<211> 114
<212> PRT
<213> Artificial Sequence

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

<400> 49
Glu Val Gln Leu Val Glu Thr Gly Gly Asn Leu Val Gln Pro Gly Ala
1 5 10 15

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

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

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

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

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

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

Ser Ser

<210> 50
<211> 113

<212> PRT
<213> Artificial Sequence

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

<400> 50
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

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

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

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

Gly

<210> 51
<211> 342
<212> DNA
<213> Artificial Sequence

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

<400> 51
gaggtgcagc tggtggagac tgggggaaac ttggtacagc cgggggcgtc cctgagactc 60

tcctgtgcag cctctggatt cagctttagt ggcactgcca tgcactgggt ccgccaggct 120

ccagggaagg ggctggaatg ggtctcgact attagtagta ctgggcgtag cacatactac 180

agagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag aggcgaggac acggccgtat attactgtgc gcgcgtttct 300

ttcgattact ggggtcaagg tactctggtg accgtctcct ca 342

<210> 52

<211> 339
<212> DNA
<213> Artificial Sequence

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

<400> 52
cagtctgtcg tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcag 120

cttccaggaa cagccccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gagtggctcc 300

tacgtcttcg gaactgggac caagctgacc gtcctaggt 339

<210> 53
<211> 118
<212> PRT
<213> Artificial Sequence

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

<400> 53
Glu Val Gln Leu Val Glu Ser Gly Gly Ala Phe Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 54
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 54
Gln Ser Val Val Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

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

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

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

<210> 55
<211> 354
<212> DNA
<213> Artificial Sequence

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

<400> 55
gaggtgcagc tggtggagtc tgggggagcc tttgtacagc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttagc agctatgcca tgacctgggt ccgccaggct 120

ccagggaagg gcctggaatg ggtctcgact attagtggtc gtggtcgtag cacattctac 180

gcagactccg tgaagggccg gtttaccatc tccagagaca attccaagaa cacgctatat 240

ctgcaaatga acagtctgag agccgaggac acggccgtat attactgtgc gcgctactac 300

catgctggtg ctttcgatct gtggggtcaa ggtactctgg tgaccgtctc ctca 354

<210> 56
<211> 333
<212> DNA

<213> Artificial Sequence

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

<400> 56
cagtctgtcg tgacgcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacag 120

cacccaggca aagcccccaa actcatgatt tatgatgtca gtaagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggctgagg acgaggctga ttattactgc agctcatata caagcagcag cactttggta 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 57
<211> 114
<212> PRT
<213> Artificial Sequence

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

<400> 57
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Ser His Tyr Ala Gln Lys Leu
50 55 60

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

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

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

Ser Ser

<210> 58
<211> 111

<212> PRT
<213> Artificial Sequence

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

<400> 58
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

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

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

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

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

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

Asn Thr Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu Gly
100 105 110

<210> 59
<211> 342
<212> DNA
<213> Artificial Sequence

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

<400> 59
cagatgcagc tggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttaac agatatgcta tcacctgggt gcgacaggcc 120

cctggacaag gccttgagtg gatgggatgg atcagcgctt acaatggtaa ttcacactat 180

gcacagaagc tccagggcag agtcaccatg accacagaca catccacggg cacagcctat 240

atggagctga ggaggctgag atctgacgac acggccgtgt attactgtgc gcgcatggct 300

tacgattctt ggggtcaagg tactctggtg accgtctcct ca 342

<210> 60
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 60
cagtctgtgt tgacgcagcc tgcctccgtg tctgggtctc ctggacagtc gctcaccatc 60

tcctgcactg gaaccagcaa tgacgttggt gcttataagt atgtctcctg gtatcaacag 120

tacccaggca aagcccccaa actcatactt tatgatgtct ttaagcggcc ctcaggggtc 180

tctaatcgct tctctggctc caagtctgac aacacggcct ccctgaccat ctctgggctc 240

caggctgagg acgaggctga ttattactgc ttctcactta caagcagtaa cacttatgtc 300

ttcggaactg ggaccaaggt caccgtccta ggt 333

<210> 61
<211> 117
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 62
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 62
Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp Ser Leu
85 90 95

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

<210> 63
<211> 351
<212> DNA
<213> Artificial Sequence

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

<400> 63
gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctggat ccgccaggct 120

ccagggaagg ggctggagtg ggtttcatac attagtagta gtggtagtac catatactac 180

gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctcactgtat 240

ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gcgcggttac 300

ggtaaagctt acgatcagtg gggtcaaggt actctggtga ccgtctcctc a 351

<210> 64
<211> 333
<212> DNA
<213> Artificial Sequence

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

polynucleotide

<400> 64
cagtctgtgt tgactcagcc accctcagcg tctgggaccc ccggacagag ggtcaccatc 60

tcttgttctg gaagcaggtc caacgtagga ggtaattatg tattttggta ccagcaagtc 120

cccggagcga cccccaaact cctcatctat aggagtaatc agcggccctc gggggtccct 180

gaccgattcg ctggctccaa gtctggctcc tcagcctccc tggccatcag tggactccgg 240

tccgaggatg aggctgatta ttactgtgca acatgggatg acagcctgag tggttttgtc 300

ttcggaactg ggaccaaggt caccgtccta ggt 333

<210> 65
<211> 119
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 66
<211> 110
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

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

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

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

Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn Pro
85 90 95

Pro Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 67
<211> 357
<212> DNA
<213> Artificial Sequence

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

<400> 67
caggtgcagc tggtggagtc tgggggaggc ctggtccacc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcaga agccatagca tgaactgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcatcc attagtagtg atagtactta cacatactac 180

gcagactcag tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gcgctctggt 300

ggtcagtgga aatactacga ttactggggt caaggtactc tggtgaccgt ctcctca 357

<210> 68
<211> 330
<212> DNA
<213> Artificial Sequence

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

<400> 68
tcttctgagc tgactcagga ccctgctgtg tctgtggcct tgggacagac agtcaggatc 60

acatgccaag gagacagcct cagaagctat tatgcaagct ggtaccagca gaagccagga 120

caggcccctg tacttgtcat ctatggtaaa aacaaccggc cctcagggat cccagaccga 180

ttctctggct ccagctcagg aaacacagct tccttgacca tcactggggc tcaggcggaa 240

gatgaggctg actattactg taactcccgg gacagcagtg gtaacccccc tgtggtattc 300

ggcggaggga ccaagctgac cgtcctaggt 330

<210> 69
<211> 116
<212> PRT
<213> Artificial Sequence

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

<400> 69
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Leu Val Thr Val
115

<210> 70
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 70
Gln Ser Val Val Thr Gln Pro Pro Ser Met Ser Ala Ala Pro Gly Gln
1 5 10 15

Gln Val Thr Ile Ser Cys Ser Gly Gly Asn Ser Asn Ile Glu Arg Asn
20 25 30

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

Ile Phe Asp Asn Asp Arg Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 71
<211> 354
<212> DNA
<213> Artificial Sequence

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

<400> 71
gaggtgcagc tggtggagtc cgggggaggc ttgatacagc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttagc aactatgcca tgaactgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcaact attaatggtc gtggtagtag tacaatctac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgaggac acagccacgt attactgtgc gcgctacatc 300

tctcgtggtc tgggtgattc ttggggtcaa ggtactctgg tgaccgtctc ctca 354

<210> 72
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 72
cagtctgtcg tgacgcagcc gccctcaatg tctgcggccc caggacagca agtcaccatc 60

tcctgctctg gaggcaactc caacattgag agaaattatg tatcctggta cctccagctc 120

cctggaacag cccccaaact cgtcattttt gacaatgata ggcgaccctc agggattcct 180

gaccgattct ctggctccaa gtctggcacg tcagccaccc tgggcatcac cggactccag 240

actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag aggttgggtg 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 73
<211> 116
<212> PRT
<213> Artificial Sequence

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

<400> 73
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val 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 Ala Gly Met Gly Met Asp Thr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 74
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 74

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

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
            20                  25                  30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ala Gly Ser
                85                  90                  95

Asn Thr Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 75
<211> 348
<212> DNA
<213> Artificial Sequence

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

<400> 75
cagatgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta gtggtggtag cacaagctac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcgctggt 300

atgggtatgg atacttgggg tcaaggtact ctggtgaccg tctcctca 348

<210> 76
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 76
cagtctgccc tgactcagcc tccctccgcg tccgggtctc ctggacagtc agtcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacag 120

cacccaggca aagcccccaa actcatgatt tatgaggtca gtaagcggcc ctcaggggtc 180

cctgatcgct tctctggctc caagtctggc aacacggcct ccctgaccgt ctctgggctc 240

caggctgagg atgaggctga ttattactgc agctcatatg caggcagcaa caccttggtg 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 77
<211> 117
<212> PRT
<213> Artificial Sequence

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

<400> 77
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 78
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 78
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

```
Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Ile Gly Gly Tyr
            20                  25                  30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser Phe Ala Gly Arg
                85                  90                  95

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

<210> 79
<211> 351
<212> DNA
<213> Artificial Sequence

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

<400> 79
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaggg cttctggata caccttcacc gcctactctt tacactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcaacccta gcagtggtgg cgcagtttat 180

gcacagaaat ttcagggtag ggtcaccatg accagggaca cgtccatcag cacagcctac 240

atggagctga gtggcctgag atctgacgac acggccgtgt attactgtgc gcgcaacgtt 300

ggtggtcagg ctgatgactg gggtcaaggt actctggtga ccgtctcctc a 351

<210> 80
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 80
caatctgccc tgactcagcc tccctccgcg tccgggtctc ctggacagtc agtcaccatc 60

tcctgcactg gaaccagcag tgacattggt ggttataact atgtctcctg gtaccaacag 120

cacccaggca aagcccccaa actcatgatt tatgaggtca ataagcggcc ctcaggggtc 180

cctgatcgct tctcgggctc caagtctggc aacacggcct ccctgaccgt ctctgggctc 240

caggctgagg atgaggctga ttattactgc gcctcatttg cgggcaggaa gacattggtc 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 81
<211> 117
<212> PRT
<213> Artificial Sequence

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

<400> 81
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 82
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 82
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Thr Asp Ile Gly Gly Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser Phe Ala Gly Arg
85 90 95

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

<210> 83
<211> 351
<212> DNA
<213> Artificial Sequence

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

<400> 83
caggtgcagc tggtgcagtc tggggctgag gtgaaaaagc ctggggcctc agtgaaagtc 60

tcctgcaggg cttctggata caccttcacc gcctactctt tacactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcaacccta gcagtggtgg cgcagtttat 180

gcacagaaat ttcagggtag ggtcaccatg accagggaca cgtccatcag cacagcctac 240

atggagctga gtggcctgag atctgacgac acggccgtgt attactgtgc gcgcaacgtt 300

ggtggtcacg ctgatgactg gggtcaaggt actctggtga ccgtctcctc a 351

<210> 84
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 84
caatctgccc tgactcagcc tccctccgcg tccgggtctc ctggacagtc agtcaccatc 60

tcctgcactg gaaccagcac tgacattggt ggttataact atgtctcctg gtaccaacac 120

cacccaagca aagcccccaa actcatgatt tatgaggtca ataagcggcc ctcaggggtc 180

cctgatcgct tctcgggctc caagtctggc aacacggcct ccctgaccgt ctctgggctc 240

caggctgagg atgaggctga ttattactgc gcctcatttg cgggcaggaa gacattggtc 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 85
<211> 129
<212> PRT
<213> Artificial Sequence

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

<400> 85
Gln Val Gln Leu Val Gln Ser Gly Gly Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

Gly Trp Ile Ser Ala Asn Asn Gly His Thr Lys Ser Ala Gln Arg Phe
50 55 60

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

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

Ala Arg Gly Gly Tyr His His Gln Met Gln Arg Tyr Tyr Lys Ala Thr
100 105 110

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

Ser

<210> 86
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 86
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

```
Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
            20                  25                  30

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

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

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

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

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

<210> 87
<211> 387
<212> DNA
<213> Artificial Sequence

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

<400> 87
caggtccagc tggtgcagtc tggaggtgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggttt cacctttaac acctatggca tcagttgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgcta acaatggtca cacaaagtct 180

gcacagaggt tccaggacag agtcgccatg gccacagaca catccacgag cacggcctac 240

atggagctga ggagcctgaa atttgacgac acggccgtgt attactgtgc gcgcggtggt 300

taccatcatc agatgcagcg gtactacaaa gctacttctg tttactctga ttactggggt 360

caaggtactc tggtgaccgt ctcctca 387

<210> 88
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 88
cagtctgtcg tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60

tcctgctctg gaagcagctc caacattggg aataattatg tatcctggta ccagcaactc 120

ccaggaacag cccccaaact cctcatttat gacaataata agcgaccctc agggattcct 180

gaccgattct ctggctccaa gtctggcacg tctgccaccc tgggcatcac cggactccag 240

actggggacg aggccgatta ttactgcgga acatgggata gcagcctgag tggtgtggta 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 89
<211> 116
<212> PRT
<213> Artificial Sequence

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

<400> 89
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val 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 Ala Gly Met Gly Met Asp Thr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 90
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 90
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

```
Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
            20                  25                  30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ala Gly Ser
                85                  90                  95

Asn Thr Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 91
<211> 348
<212> DNA
<213> Artificial Sequence

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

<400> 91
cagatgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta gtggtggtag ctcaagctac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcgctggt 300

atgggtatgg atacttgggg tcaaggtact ctggtgaccg tctcctca 348

<210> 92
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 92
cagtctgccc tgactcagcc tccctccgcg tccgggtctc ctggacagtc agtcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacag 120

cacccaggca aagcccccaa actcatgatt tatgaggtca gtaagcggcc ctcaggggtc 180

cctgatcgct tctctggctc caagtctggc aacacggcct ccctgaccgt ctctgggctc 240

caggctgagg atgaggctga ttattactgc agctcatatg caggcagcaa caccttggtg 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 93
<211> 117
<212> PRT
<213> Artificial Sequence

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

<400> 93
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val 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 Asp Val Ile Ser Gly Phe Asp Ser Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 94
<211> 111
<212> PRT
<213> Artificial Sequence

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

<400> 94
Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

```
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
            20                  25                  30

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

Met Ile Tyr Gly Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ala Gly Val
                85                  90                  95

Asn Asn Leu Met Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 95
<211> 351
<212> DNA
<213> Artificial Sequence

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

<400> 95
caggtgcagc tggtgcaatc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta gtggtggtag cacaagctac 180

gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac actgccgtgt attactgtgc gcgcgacgtt 300

atctctggtt tcgattcttg gggtcaaggt actctggtga ccgtctcctc a 351

<210> 96
<211> 333
<212> DNA
<213> Artificial Sequence

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

<400> 96
cagtctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacaa 120

tccccaggca aagcccccag actcatgatt tatggggtca gtaagcggcc ctctggggtc 180

cctgatcgct tctctggctc caagtctggc aacacggcct ccctgaccgt ctctgggctc 240

caggctgaag atgaggctga ttattactgc agctcatatg caggcgtcaa caatttaatg 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 97
<211> 345
<212> PRT
<213> Homo sapiens

<400> 97
Met Tyr Lys Asp Cys Ile Glu Ser Thr Gly Asp Tyr Phe Leu Leu Cys
1 5 10 15

Asp Ala Glu Gly Pro Trp Gly Ile Ile Leu Glu Ser Leu Ala Ile Leu
20 25 30

Gly Ile Val Val Thr Ile Leu Leu Leu Leu Ala Phe Leu Phe Leu Met
35 40 45

Arg Lys Ile Gln Asp Cys Ser Gln Trp Asn Val Leu Pro Thr Gln Leu
50 55 60

Leu Phe Leu Leu Ser Val Leu Gly Leu Phe Gly Leu Ala Phe Ala Phe
65 70 75 80

Ile Ile Glu Leu Asn Gln Gln Thr Ala Pro Val Arg Tyr Phe Leu Phe
85 90 95

Gly Val Leu Phe Ala Leu Cys Phe Ser Cys Leu Leu Ala His Ala Ser
100 105 110

Asn Leu Val Lys Leu Val Arg Gly Cys Val Ser Phe Ser Trp Thr Thr
115 120 125

Ile Leu Cys Ile Ala Ile Gly Cys Ser Leu Leu Gln Ile Ile Ile Ala
130 135 140

Thr Glu Tyr Val Thr Leu Ile Met Thr Arg Gly Met Met Phe Val Asn
145 150 155 160

Met Thr Pro Cys Gln Leu Asn Val Asp Phe Val Val Leu Leu Val Tyr
165 170 175

Val Leu Phe Leu Met Ala Leu Thr Phe Phe Val Ser Lys Ala Thr Phe
180 185 190

Cys Gly Pro Cys Glu Asn Trp Lys Gln His Gly Arg Leu Ile Phe Ile
195 200 205

```
Thr Val Leu Phe Ser Ile Ile Ile Trp Val Val Trp Ile Ser Met Leu
    210                 215                 220

Leu Arg Gly Asn Pro Gln Phe Gln Arg Gln Pro Gln Trp Asp Asp Pro
225                 230                 235                 240

Val Val Cys Ile Ala Leu Val Thr Asn Ala Trp Val Phe Leu Leu Leu
                245                 250                 255

Tyr Ile Val Pro Glu Leu Cys Ile Leu Tyr Arg Ser Cys Arg Gln Glu
            260                 265                 270

Cys Pro Leu Gln Gly Asn Ala Cys Pro Val Thr Ala Tyr Gln His Ser
        275                 280                 285

Phe Gln Val Glu Asn Gln Glu Leu Ser Arg Ala Arg Asp Ser Asp Gly
    290                 295                 300

Ala Glu Glu Asp Val Ala Leu Thr Ser Tyr Gly Thr Pro Ile Gln Pro
305                 310                 315                 320

Gln Thr Val Asp Pro Thr Gln Glu Cys Phe Ile Pro Gln Ala Lys Leu
                325                 330                 335

Ser Pro Gln Gln Asp Ala Gly Gly Val
            340                 345
```

<210> 98
<211> 21
<212> PRT
<213> Artificial Sequence

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

<400> 98

```
Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1               5                   10                  15

Ser Leu Glu Met Ala
            20
```

<210> 99
<211> 63
<212> DNA
<213> Artificial Sequence

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

<400> 99

tctagaggtg gtggtggtag cggcggcggc ggctctggtg gtggtggatc cctcgagatg 60

gcc 63

<210> 100
<211> 252
<212> PRT
<213> Artificial Sequence

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

<400> 100
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Pro Cys Ser Gly Ser Arg Ser Asn Val Gly Asn Tyr
20 25 30

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

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

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

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

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ser Glu Leu Lys
130 135 140

Lys Pro Gly Ala Ser Val Arg Val Ser Cys Thr Ala Ser Gly Tyr Thr
145 150 155 160

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

Leu Glu Trp Met Gly Val Ile Asn Pro Asn Ala Gly Ser Thr Arg Tyr
180 185 190

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Ser Thr Asp Thr Ser Thr

195 200 205

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

Val Tyr Tyr Cys Ala Arg Gly Met Tyr Arg Ser Leu Leu Phe Tyr Asp
225 230 235 240

Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
245 250

<210> 101
<211> 250
<212> PRT
<213> Artificial Sequence

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

<400> 101
Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Phe Gln Gln Arg Pro Gly Ser Ala Pro Thr Thr Val
35 40 45

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

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

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

Asp Ser Ser Asn Val Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125

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

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
145 150 155 160

```
Phe Thr Phe Ser Asn Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly
                165                 170                 175

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

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

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

Ala Val Tyr Tyr Cys Ala Arg Gly Ser Val Arg Tyr Thr Asp Ile Trp
225                 230                 235                 240

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
                245                 250
```

<210> 102
<211> 248
<212> PRT
<213> Artificial Sequence

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

<400> 102

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

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

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

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

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

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

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

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met
```

```
        115                 120                 125

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

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

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

Val Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Ala Asp Ser
            180                 185                 190

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

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

Cys Ala Arg Ser Met Ser Thr Ala Trp Gly Tyr Asp Glu Trp Gly Gln
225                 230                 235                 240

Gly Thr Leu Val Thr Val Ser Ser
                245
```

<210> 103
<211> 253
<212> PRT
<213> Artificial Sequence

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

<400> 103

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
            20                  25                  30

Asn Phe Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Val
        35                  40                  45

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Ile Ser Asn Arg Phe
    50                  55                  60

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

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

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
145                 150                 155                 160

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Arg Tyr
            180                 185                 190

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
        195                 200                 205

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

Val Tyr Tyr Cys Ala Arg Gly Ser Ser Arg Trp Gly Gly Trp Thr Gly
225                 230                 235                 240

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
                245                 250


<210> 104
<211> 249
<212> PRT
<213> Artificial Sequence

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


<220>
<221> MOD_RES
<222> (37)..(37)
<223> Any amino acid

<400> 104
Gln Ser Val Leu Thr Gln Pro Pro Ser Leu Ser Gly Ala Pro Gly Gln
1               5                   10                  15
```

```
Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly Thr Asn
            20                  25                  30

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

Ile Tyr Arg Asn His Gln Trp Pro Ser Gly Val Pro Asp Arg Phe Thr
    50                  55                  60

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Asn Leu
                85                  90                  95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Val
    130                 135                 140

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

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

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

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

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

Val Tyr Tyr Cys Ala Arg Tyr Tyr Lys Ser Ser Lys Asp His Trp Gly
225                 230                 235                 240

Gln Gly Thr Leu Val Thr Val Ser Ser
                245
```

<210> 105
<211> 253
<212> PRT

<213> Artificial Sequence

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

<400> 105
Gln Ala Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

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

Arg Pro Gly Ala Ser Val Arg Val Ser Cys Lys Ala Ile Ala Tyr Thr
145 150 155 160

Phe Thr Asp Tyr Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly
165 170 175

Pro Glu Trp Met Gly Trp Ile Asn Pro Lys Ser Gly Arg Thr Gln Tyr
180 185 190

Ala Pro Lys Phe Gln Asp Arg Val Thr Leu Ala Arg Glu Thr Pro Ile
195 200 205

Ser Thr Ala Ser Met Glu Leu Arg Gly Leu Thr Ser Asp Asp Thr Ala
210 215 220

Val Tyr Tyr Cys Ala Arg Val Tyr Gly Tyr Ser Arg Trp Ser Gly Phe

225 230 235 240

Asp Leu Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
245 250

<210> 106
<211> 256
<212> PRT
<213> Artificial Sequence

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

<400> 106
Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

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

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

Met Ile Tyr Glu Val Ser Lys Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

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

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

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
130 135 140

Gln Pro Gly Ala Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr
145 150 155 160

Phe Thr Thr Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
165 170 175

Leu Glu Trp Met Gly Ile Ile Asn Pro Asn Gly Gly Gly Thr Phe Tyr
180 185 190

```
Ala Gln Lys Phe Gln Asp Arg Val Thr Met Thr Arg Asp Thr Ser Thr
        195                 200                 205

Gly Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala
    210                 215                 220

Val Tyr Tyr Cys Ala Arg Gly His Lys Val Tyr Lys Ser His Pro Thr
225                 230                 235                 240

Gly Gly Tyr Asp Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
                245                 250                 255
```

<210> 107
<211> 251
<212> PRT
<213> Artificial Sequence

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

<400> 107

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

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
                85                  90                  95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
```

145 150 155 160

Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly
165 170 175

Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Lys Tyr
180 185 190

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

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

Val Tyr Tyr Cys Ala Arg Ser His Val Ala Trp Ser Leu Leu Asp Tyr
225 230 235 240

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
245 250

<210> 108
<211> 252
<212> PRT
<213> Artificial Sequence

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

<400> 108
Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

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

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

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

```
Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
145                 150                 155                 160

Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly
                165                 170                 175

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr
            180                 185                 190

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

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

Val Tyr Tyr Cys Ala Arg Tyr Gln Ser Tyr Lys Gly Ser Gln Ser Asp
225                 230                 235                 240

Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
                245                 250
```

<210> 109
<211> 259
<212> PRT
<213> Artificial Sequence

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

<400> 109

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
            20                  25                  30

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

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Val Ser Asn Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
```

65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Arg Ser
85 90 95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Leu Glu Met Ala Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
130 135 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
145 150 155 160

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr
180 185 190

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
195 200 205

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

Val Tyr Tyr Cys Ala Arg Gly Gly Ser Lys Lys Trp Ser Gly Glu Lys
225 230 235 240

Trp Arg Arg Glu Asn Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
245 250 255

Val Ser Ser

<210> 110
<211> 244
<212> PRT
<213> Artificial Sequence

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

<400> 110
Ser Tyr Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

```
Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
            20                  25                  30

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

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

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

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
                85                  90                  95

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

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu
        115                 120                 125

Glu Met Ala Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
    130                 135                 140

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Glu Tyr Thr Phe
145                 150                 155                 160

Thr Arg His Ile Leu His Trp Val Arg Gln Ala Pro Gly Gln Ser Leu
                165                 170                 175

Glu Trp Met Gly Trp Ile Asn Pro Gly Asn Gly Asn Thr Lys Tyr Ser
            180                 185                 190

Gln Lys Phe Gln Val Arg Val Thr Phe Thr Arg Asp Thr Ser Ala Ser
        195                 200                 205

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

Tyr Tyr Cys Ala Arg Leu Pro Asp Gln Trp Gly Gln Gly Thr Leu Val
225                 230                 235                 240

Thr Val Ser Ser
```

<210> 111
<211> 247
<212> PRT

<213> Artificial Sequence

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

<400> 111
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

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

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

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

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

Gln Ala Asp Asp Glu Ala Val Tyr Tyr Cys Ser Ser Tyr Gly Gly Ser
85 90 95

Asn Asn Phe Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

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

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

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

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

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

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

Ala Val Tyr Tyr Cys Ala Arg Ser Lys Gln Asp Tyr Trp Gly Gln Gly

225 230 235 240

Thr Leu Val Thr Val Ser Ser
245

<210> 112
<211> 248
<212> PRT
<213> Artificial Sequence

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

<400> 112
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

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

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

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

Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
115 120 125

Gly Ser Leu Glu Met Ala Glu Val Gln Leu Val Glu Thr Gly Gly Asn
130 135 140

Leu Val Gln Pro Gly Ala Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
145 150 155 160

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

Lys Gly Leu Glu Trp Val Ser Thr Ile Ser Ser Thr Gly Arg Ser Thr
180 185 190

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

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

Thr Ala Val Tyr Tyr Cys Ala Arg Val Ser Phe Asp Tyr Trp Gly Gln
225 230 235 240

Gly Thr Leu Val Thr Val Ser Ser
245

<210> 113
<211> 250
<212> PRT
<213> Artificial Sequence

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

<400> 113
Gln Ser Val Val Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

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

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

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Leu Glu Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Ala Phe Val
130 135 140

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

145 150 155 160

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

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

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

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

Val Tyr Tyr Cys Ala Arg Tyr Tyr His Ala Gly Ala Phe Asp Leu Trp
225 230 235 240

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
245 250

<210> 114
<211> 246
<212> PRT
<213> Artificial Sequence

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

<400> 114
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

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

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

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

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

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

Asn Thr Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu Gly Ser
100 105 110

```
Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
145                 150                 155                 160

Phe Asn Arg Tyr Ala Ile Thr Trp Val Arg Gln Ala Pro Gly Gln Gly
                165                 170                 175

Leu Glu Trp Met Gly Trp Ile Ser Ala Tyr Asn Gly Asn Ser His Tyr
            180                 185                 190

Ala Gln Lys Leu Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr
        195                 200                 205

Gly Thr Ala Tyr Met Glu Leu Arg Arg Leu Arg Ser Asp Asp Thr Ala
    210                 215                 220

Val Tyr Tyr Cys Ala Arg Met Ala Tyr Asp Ser Trp Gly Gln Gly Thr
225                 230                 235                 240

Leu Val Thr Val Ser Ser
                245
```

<210> 115
<211> 249
<212> PRT
<213> Artificial Sequence

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

<400> 115

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

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

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

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

Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg
```

65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp Ser Leu
85 90 95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

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

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

Phe Ser Asp Tyr Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly
165 170 175

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

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

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

Val Tyr Tyr Cys Ala Arg Gly Tyr Gly Lys Ala Tyr Asp Gln Trp Gly
225 230 235 240

Gln Gly Thr Leu Val Thr Val Ser Ser
245

<210> 116
<211> 250
<212> PRT
<213> Artificial Sequence

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

<400> 116
Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln
1 5 10 15

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

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

Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
    50                  55                  60

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

Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn Pro
                85                  90                  95

Pro Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ser Arg
            100                 105                 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu
        115                 120                 125

Glu Met Ala Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val His
    130                 135                 140

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

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

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

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

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

Tyr Tyr Cys Ala Arg Ser Gly Gly Gln Trp Lys Tyr Tyr Asp Tyr Trp
225                 230                 235                 240

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
                245                 250
```

<210> 117
<211> 248
<212> PRT
<213> Artificial Sequence

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

polypeptide

<400> 117

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

Gln Val Thr Ile Ser Cys Ser Gly Gly Asn Ser Asn Ile Glu Arg Asn
            20                  25                  30

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

Ile Phe Asp Asn Asp Arg Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60

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

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

Arg Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ser
            100                 105                 110

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile
    130                 135                 140

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

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

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

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

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

Thr Tyr Tyr Cys Ala Arg Tyr Ile Ser Arg Gly Leu Gly Asp Ser Trp
225                 230                 235                 240

Gly Gln Gly Thr Leu Val Thr Val
```

245

<210> 118
<211> 248
<212> PRT
<213> Artificial Sequence

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

<400> 118
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ala Gly Ser
85 90 95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Leu Glu Met Ala Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys
130 135 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
145 150 155 160

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr
180 185 190

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
195 200 205

```
Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
    210                 215                 220

Val Tyr Tyr Cys Ala Arg Ala Gly Met Gly Met Asp Thr Trp Gly Gln
225                 230                 235                 240

Gly Thr Leu Val Thr Val Ser Ser
                245
```

<210> 119
<211> 249
<212> PRT
<213> Artificial Sequence

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

<400> 119

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

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Ile Gly Gly Tyr
            20                  25                  30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser Phe Ala Gly Arg
                85                  90                  95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Arg Ala Ser Gly Tyr Thr
145                 150                 155                 160

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

165 170 175

Leu Glu Trp Met Gly Trp Ile Asn Pro Ser Ser Gly Gly Ala Val Tyr
180 185 190

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

Ser Thr Ala Tyr Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala
210 215 220

Val Tyr Tyr Cys Ala Arg Asn Val Gly Gly Gln Ala Asp Asp Trp Gly
225 230 235 240

Gln Gly Thr Leu Val Thr Val Ser Ser
245

<210> 120
<211> 249
<212> PRT
<213> Artificial Sequence

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

<400> 120
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Thr Asp Ile Gly Gly Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ser Phe Ala Gly Arg
85 90 95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

```
Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Arg Ala Ser Gly Tyr Thr
145                 150                 155                 160

Phe Thr Ala Tyr Ser Leu His Trp Val Arg Gln Ala Pro Gly Gln Gly
                165                 170                 175

Leu Glu Trp Met Gly Trp Ile Asn Pro Ser Ser Gly Gly Ala Val Tyr
            180                 185                 190

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

Ser Thr Ala Tyr Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala
    210                 215                 220

Val Tyr Tyr Cys Ala Arg Asn Val Gly Gly His Ala Asp Asp Trp Gly
225                 230                 235                 240

Gln Gly Thr Leu Val Thr Val Ser Ser
                245
```

<210> 121
<211> 261
<212> PRT
<213> Artificial Sequence

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

<400> 121

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

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
            20                  25                  30

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

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

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

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
```

85 90 95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
115 120 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Gly Glu Val Lys
130 135 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr
145 150 155 160

Phe Asn Thr Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly
165 170 175

Leu Glu Trp Met Gly Trp Ile Ser Ala Asn Asn Gly His Thr Lys Ser
180 185 190

Ala Gln Arg Phe Gln Asp Arg Val Ala Met Ala Thr Asp Thr Ser Thr
195 200 205

Ser Thr Ala Tyr Met Glu Leu Arg Ser Leu Lys Phe Asp Asp Thr Ala
210 215 220

Val Tyr Tyr Cys Ala Arg Gly Gly Tyr His His Gln Met Gln Arg Tyr
225 230 235 240

Tyr Lys Ala Thr Ser Val Tyr Ser Asp Tyr Trp Gly Gln Gly Thr Leu
245 250 255

Val Thr Val Ser Ser
260

<210> 122
<211> 248
<212> PRT
<213> Artificial Sequence

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

<400> 122
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Val Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ala Gly Ser
                85                  90                  95

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

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
145                 150                 155                 160

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Ser Ser Tyr
            180                 185                 190

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
        195                 200                 205

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

Val Tyr Tyr Cys Ala Arg Ala Gly Met Gly Met Asp Thr Trp Gly Gln
225                 230                 235                 240

Gly Thr Leu Val Thr Val Ser Ser
                245
```

<210> 123
<211> 249
<212> PRT
<213> Artificial Sequence

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

polypeptide

<400> 123

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

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
            20                  25                  30

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

Met Ile Tyr Gly Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Val Ser Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ala Gly Val
                85                  90                  95

Asn Asn Leu Met Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ser
            100                 105                 110

Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        115                 120                 125

Leu Glu Met Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
    130                 135                 140

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
145                 150                 155                 160

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr
            180                 185                 190

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
        195                 200                 205

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

Val Tyr Tyr Cys Ala Arg Asp Val Ile Ser Gly Phe Asp Ser Trp Gly
225                 230                 235                 240

Gln Gly Thr Leu Val Thr Val Ser Ser
```

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

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

<400> 124
Gly Tyr Thr Phe Thr Ser Tyr Tyr
1 5

<210> 125
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 125
Gly Tyr Thr Phe Thr Ser Tyr Tyr
1 5

<210> 126
<211> 13
<212> PRT
<213> Artificial Sequence

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

<400> 126
Ala Arg Gly Met Tyr Arg Ser Leu Leu Phe Tyr Asp Pro
1 5 10

<210> 127
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 127
Arg Ser Asn Val Gly Asn Tyr Tyr
1 5

<210> 128
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 128
Asp Asn Asn
1

<210> 129
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 129
Gly Thr Trp Asp Gly Ser Leu Ser Ala His Val
1 5 10

<210> 130
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 130
Gly Phe Thr Phe Ser Asn Tyr Ala
1 5

<210> 131
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 131
Ile Ser Gly Ser Gly Asn Thr
1 5

<210> 132
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 132
Ala Arg Gly Ser Val Arg Tyr Thr Asp Ile
1 5 10

<210> 133
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 133
Ser Gly Ala Ile Ala Gly Ala Tyr
1 5

<210> 134
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 134
Asp Asp Asn
1

<210> 135
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 135
Gln Ser Tyr Asp Tyr Asp Ser Ser Asn Val Leu
1 5 10

<210> 136
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 136
Gly Phe Thr Phe Asn Asn Tyr Trp
1 5

<210> 137
<211> 8
<212> PRT
<213> Artificial Sequence

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

peptide

<400> 137
Ile Lys Gln Asp Gly Ser Glu Lys
1 5

<210> 138
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 138
Ala Arg Ser Met Ser Thr Ala Val
1 5

<210> 139
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 139
Gln Ser Ile Ser Ser Tyr
1 5

<210> 140
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 140
Ala Ala Ser
1

<210> 141
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 141
Gln Gln Ser Tyr Ser Val Pro Tyr Thr
1 5

<210> 142

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

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

<400> 142
Gly Tyr Thr Phe Thr Ser Tyr Tyr
1 5

<210> 143
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 143
Ile Asn Pro Ser Gly Gly Ser Thr
1 5

<210> 144
<211> 14
<212> PRT
<213> Artificial Sequence

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

<400> 144
Ala Arg Gly Ser Ser Arg Trp Gly Gly Trp Thr Gly Asp Tyr
1 5 10

<210> 145
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 145
Ser Ser Asp Val Gly Gly Tyr Asn Phe
1 5

<210> 146
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 146
Asp Val Ser
1

<210> 147
<211> 20
<212> PRT
<213> Artificial Sequence

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

<400> 147
Ser Ser Tyr Thr Ser Thr Arg Thr Val Ile Phe Ala Gly Gly Thr Lys
1 5 10 15

Val Thr Val Leu
20

<210> 148
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 148
Gly Ser Thr Phe Ser Ser Tyr Ala
1 5

<210> 149
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 149
Ile Ser Gly Arg Gly Arg Ser Thr
1 5

<210> 150
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 150
Ala Arg Tyr Tyr Lys Ser Lys Asp His
1 5

<210> 151
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 151
Arg Ser Asn Ile Gly Thr Asn Tyr
1 5

<210> 152
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 152
Arg Asn His
1

<210> 153
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 153
Ala Ala Trp Asp Asp Asn Leu Ser Gly Val Val
1 5 10

<210> 154
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 154
Ala Tyr Thr Phe Thr Asp Tyr Tyr
1 5

<210> 155
<211> 8
<212> PRT
<213> Artificial Sequence

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

peptide

<400> 155
Ile Asn Pro Lys Ser Gly Arg Thr
1 5

<210> 156
<211> 14
<212> PRT
<213> Artificial Sequence

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

<400> 156
Ala Arg Val Tyr Gly Tyr Ser Arg Trp Ser Gly Phe Asp Leu
1 5 10

<210> 157
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 157
Ser Ser Asn Ile Gly Ser Asn Tyr
1 5

<210> 158
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 158
Arg Asn Asn
1

<210> 159
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 159
Ala Ala Trp Asp Asp Ser Leu Ser Gly Tyr Val
1 5 10

<210> 160

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

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

<400> 160
Gly Tyr Thr Phe Thr Thr Tyr Tyr
1 5

<210> 161
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 161
Ile Asn Pro Asn Gly Gly Gly Thr
1 5

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

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

<400> 162
Ala Arg Gly His Lys Val Tyr Lys Ser His Pro Thr Gly Gly Tyr Asp
1 5 10 15

Arg

<210> 163
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 163
Ser Arg Asp Val Gly Gly Tyr Asn Tyr
1 5

<210> 164
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 164
Glu Val Ser
1

<210> 165
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 165
Ser Ser Tyr Thr Ser Ser Ser Thr Leu Asp
1 5 10

<210> 166
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 166
Gly Gly Thr Phe Ser Ser Tyr Ala
1 5

<210> 167
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 167
Ile Ile Pro Ile Phe Gly Thr Ala
1 5

<210> 168
<211> 12
<212> PRT
<213> Artificial Sequence

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

<400> 168
Ala Arg Ser His Val Ala Trp Ser Leu Leu Asp Tyr
1 5 10

<210> 169
<211> 8
<212> PRT
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<220>
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<400> 169
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1 5

<210> 170
<211> 3
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<220>
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peptide

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Arg Asn Asn
1

<210> 171
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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peptide

<400> 171
Ala Ala Trp Asp Asp Ser Leu Ser Gly Val Val
1 5 10

<210> 172
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<220>
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peptide

<400> 172
Gly Gly Thr Phe Ser Ser Tyr Ala
1 5

<210> 173
<211> 8
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<220>
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peptide

<400> 173
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1 5

<210> 174
<211> 13
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<220>
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Ala Arg Tyr Gln Ser Tyr Lys Gly Ser Gln Ser Asp Ser
1 5 10

<210> 175
<211> 8
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<220>
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<400> 175
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1 5

<210> 176
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<220>
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<400> 176
Arg Asn Asn
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<210> 177
<211> 11
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<400> 177
Ala Ala Trp Asp Asp Ser Leu Ser Gly Trp Val
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<211> 8
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<210> 179
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<210> 180
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Asn Phe Asp Tyr
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<210> 182
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peptide

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<210> 183
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<220>
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peptide

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1 5 10

<210> 184
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<210> 185
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<400> 185
Ile Asn Pro Gly Asn Gly Asn Thr
1 5

<210> 186
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1 5

<210> 187
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<220>
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<400> 187
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1 5

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peptide

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<210> 189
<211> 10
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peptide

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1 5 10

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1 5

<210> 191
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1 5

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1 5

<210> 193
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<220>
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<400> 193
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1 5

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<220>
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<400> 194
Glu Val Thr
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<210> 195
<211> 11
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<400> 195
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1 5 10

<210> 196

<211> 8
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peptide

<400> 196
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1 5

<210> 197
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Ile Ser Ser Thr Gly Arg Ser Thr
1 5

<210> 198
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peptide

<400> 198
Ala Arg Val Ser Phe Asp Tyr
1 5

<210> 199
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<220>
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peptide

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<210> 200
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<220>
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peptide

<400> 200
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<220>
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<400> 201
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1 5 10

<210> 202
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<220>
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1 5

<210> 203
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<220>
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<400> 203
Ile Ser Gly Arg Gly Arg Ser Thr
1 5

<210> 204
<211> 11
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1 5 10

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<210> 206
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peptide

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peptide

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1 5 10

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1 5

<210> 209
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1 5

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Ala Arg Met Ala Tyr Asp Ser
1 5

<210> 211
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1 5

<210> 212
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Asp Val Phe
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Phe Ser Leu Thr Ser Ser Asn Thr Tyr Val
1 5 10

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<210> 215
<211> 8
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1 5

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<211> 10
<212> PRT
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<400> 216
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1 5 10

<210> 217
<211> 8
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peptide

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1 5

<210> 218
<211> 3
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peptide

<400> 218
Arg Ser Asn
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<210> 219
<211> 11
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peptide

<400> 219
Ala Thr Trp Asp Asp Ser Leu Ser Gly Phe Val
1 5 10

<210> 220
<211> 8
<212> PRT
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<220>
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peptide

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1 5

<210> 221
<211> 8
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<220>
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1 5

<210> 222
<211> 12
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<220>
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peptide

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1 5 10

<210> 223
<211> 6
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peptide

<400> 223
Ser Leu Arg Ser Tyr Tyr
1 5

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Gly Lys Asn
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1 5 10

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1 5

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1 5

<210> 228

<211> 11
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1 5 10

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peptide

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<210> 231
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peptide

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1 5 10

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peptide

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1 5

<210> 233
<211> 8
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<220>
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1 5

<210> 234
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<400> 234
Ala Arg Ala Gly Met Gly Met Asp Thr
1 5

<210> 235
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1 5

<210> 236
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<210> 237
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peptide

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1 5 10

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peptide

<400> 238
Gly Tyr Thr Phe Thr Ala Tyr Ser
1 5

<210> 239
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<220>
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1 5

<210> 240
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1 5 10

<210> 241
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<400> 241
Ser Ser Asp Ile Gly Gly Tyr Asn Tyr

1 5

<210> 242
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Glu Val Asn
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<210> 243
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<400> 243
Ala Ser Phe Ala Gly Arg Lys Thr Leu Val
1 5 10

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<220>
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<210> 245
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<220>
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1 5

<210> 246
<211> 10
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<220>
<223> Description of Artificial Sequence: Synthetic
peptide

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1 5 10

<210> 247
<211> 9
<212> PRT
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peptide

<400> 247
Ser Thr Asp Ile Gly Gly Tyr Asn Tyr
1 5

<210> 248
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peptide

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Glu Val Asn
1

<210> 249
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peptide

<400> 249
Ala Ser Phe Ala Gly Arg Lys Thr Leu Val
1 5 10

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peptide

<400> 250
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1 5

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<220>
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peptide

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1 5

<210> 252
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1 5 10 15

Ser Val Tyr Ser Asp Tyr
20

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peptide

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Ser Ser Asn Ile Gly Asn Asn Tyr
1 5

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<220>
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peptide

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Asp Asn Asn
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<210> 255
<211> 11
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peptide

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1 5 10

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<220>
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peptide

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1 5

<210> 257
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peptide

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Ile Asn Pro Ser Gly Gly Ser Ser
1 5

<210> 258
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peptide

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peptide

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Ser Ser Tyr Ala Gly Ser Asn Thr Leu Val
1 5 10

<210> 262
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1 5

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Ile Asn Pro Ser Gly Gly Ser Thr
1 5

<210> 264
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Ala Arg Asp Val Ile Ser Gly Phe Asp Ser
1 5 10

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peptide

<400> 265
Ser Ser Asp Val Gly Gly Tyr Asn Tyr
1 5

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peptide

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Gly Val Ser
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<210> 267
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<220>
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peptide

<400> 267
Ser Ser Tyr Ala Gly Val Asn Asn Leu Met
1 5 10

<210> 268
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peptide

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Gly Phe Thr Phe Gly Asp Tyr Gly
1 5

<210> 269
<211> 8
<212> PRT
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<220>
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peptide

<400> 269
Ile Asn Trp Asn Gly Gly Ser Thr
1 5

<210> 270
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peptide

<400> 270
Ala Arg Ser Lys Gln Gly Tyr
1 5

<210> 271
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peptide

<400> 271
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1 5

<210> 272
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peptide

<400> 272
Glu Val Thr
1

<210> 273
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peptide

<400> 273
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1 5 10

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1 5 10 15

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

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

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

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

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

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

Ser Ser

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<212> PRT
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<220>
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<400> 275
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Ala Leu Thr Gln Pro Pro

20 25 30

Ser Ala Ser Gly Ser Pro Gly Gln Ser Val Thr Ile Ser Cys Thr Gly
35 40 45

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

His Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Glu Val Thr Lys Arg
65 70 75 80

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Lys Thr
85 90 95

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

Tyr Cys Ser Ser Tyr Gly Gly Ser Asn Asn Phe Arg Val Phe Gly Gly
115 120 125

Gly Thr Lys Leu Thr Val Leu Gly
130 135

<210> 276
<211> 271
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<400> 276
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1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Ala Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Ser Pro Gly Gln Ser Val Thr Ile Ser Cys Thr Gly
35 40 45

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

His Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Glu Val Thr Lys Arg
65 70 75 80

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Lys Thr
85 90 95

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

Tyr Cys Ser Ser Tyr Gly Gly Ser Asn Asn Phe Arg Val Phe Gly Gly
        115                 120                 125

Gly Thr Lys Leu Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Glu Val Gln
145                 150                 155                 160

Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly Ser Leu Arg
                165                 170                 175

Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr Gly Met Ser
            180                 185                 190

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Gly Ile
        195                 200                 205

Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
225                 230                 235                 240

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Ser
                245                 250                 255

Lys Gln Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            260                 265                 270
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<210> 277
<211> 342
<212> DNA
<213> Artificial Sequence

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

<400> 277
gaggtgcagc tggtggagtc tgggggaggt gtggtacggc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttggt gattatggca tgagctgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt attaattgga atggtggtag cacaggttat 180

gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccgtat attactgtgc gcgctctaaa 300

caggattact ggggtcaagg tactctggtg accgtctcct ca 342

<210> 278
<211> 408
<212> DNA
<213> Artificial Sequence

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

<400> 278
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgc cctgactcag cctccctccg cgtccgggtc tcctggacag 120

tcagtcacca tctcctgcac tggaaccagc agggacgctg gtggttataa ttatttctcc 180

tggtaccaac aacacccagg caaagccccc aaactcctga tttatgaggt cactaagcgg 240

ccctcagggg tccctgatcg cttctctggc tccaagtctg gcaagacggc ctccctgacc 300

gtctctgggc tccaggctga cgatgaggct gtatattact gcagctcata tggaggcagc 360

aacaactttc gggtgttcgg cggagggacc aagctgaccg tcctaggt 408

<210> 279
<211> 813
<212> DNA
<213> Artificial Sequence

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

<400> 279
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgc cctgactcag cctccctccg cgtccgggtc tcctggacag 120

tcagtcacca tctcctgcac tggaaccagc agggacgctg gtggttataa ttatttctcc 180

tggtaccaac aacacccagg caaagccccc aaactcctga tttatgaggt cactaagcgg 240

ccctcagggg tccctgatcg cttctctggc tccaagtctg gcaagacggc ctccctgacc 300

gtctctgggc tccaggctga cgatgaggct gtatattact gcagctcata tggaggcagc 360

aacaactttc gggtgttcgg cggagggacc aagctgaccg tcctaggttc tagaggtggt 420

ggtggtagcg gcggcggcgg ctctggtggt ggtggatccc tcgagatggc cgaggtgcag 480

ctggtggagt ctgggggagg tgtggtacgg cctgggggt ccctgagact ctcctgtgca 540

gcctctggat tcacctttgg tgattatggc atgagctggg tccgccaagc tccagggaag 600

gggctggagt gggtctctgg tattaattgg aatggtggta gcacaggtta tgcagactct 660

gtgaagggcc gattcaccat ctccagagac aacgccaaga actccctgta tctgcaaatg 720

aacagtctga gagccgagga cacggccgta tattactgtg cgcgctctaa acaggattac 780

tggggtcaag gtactctggt gaccgtctcc tca 813

<210> 280
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 280
Gly Phe Thr Phe Ser Asn Tyr Ala
1 5

<210> 281
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 281
Ile Thr Asn Ser Gly Arg Ser Thr
1 5

<210> 282
<211> 14
<212> PRT
<213> Artificial Sequence

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

<400> 282
Ala Arg Val Thr His Arg Arg Tyr Gly Ser Thr Phe Asp Ser
1 5 10

<210> 283
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 283
Ser Ser Asn Ile Gly Ser Asn Thr
1 5

<210> 284
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 284
Ser Asn Asn
1

<210> 285
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 285
Ala Ala Trp Asp Asp Ser Val Asn Gly Tyr Val
1 5 10

<210> 286
<211> 121
<212> PRT
<213> Artificial Sequence

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

<400> 286
Gln Leu Gln Leu Gln Glu Ser Gly Gly Gly Ser Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Val Thr His Arg Arg Tyr Gly Ser Thr Phe Asp Ser Arg Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 287
<211> 135
<212> PRT
<213> Artificial Sequence

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

<400> 287
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Ser Tyr Glu Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Ser Ile Ser Cys Ser Gly
35 40 45

Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Phe
50 55 60

Pro Gly Thr Ala Pro Lys Leu Leu Ile His Ser Asn Asn Gln Arg Pro
65 70 75 80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
85 90 95

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

Cys Ala Ala Trp Asp Asp Ser Val Asn Gly Tyr Val Phe Gly Thr Gly
115 120 125

Thr Lys Val Thr Val Leu Gly
130 135

<210> 288
<211> 277
<212> PRT
<213> Artificial Sequence

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

<400> 288
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Ser Tyr Glu Leu Thr Gln Pro Pro
20 25 30

```
Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Ser Ile Ser Cys Ser Gly
        35                  40                  45

Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Phe
    50                  55                  60

Pro Gly Thr Ala Pro Lys Leu Leu Ile His Ser Asn Asn Gln Arg Pro
65                  70                  75                  80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
                85                  90                  95

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

Cys Ala Ala Trp Asp Asp Ser Val Asn Gly Tyr Val Phe Gly Thr Gly
        115                 120                 125

Thr Lys Val Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Gln Leu Gln Leu
145                 150                 155                 160

Gln Glu Ser Gly Gly Gly Ser Val Gln Pro Gly Gly Ser Leu Arg Leu
                165                 170                 175

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr Ala Met Ser Trp
            180                 185                 190

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Thr
        195                 200                 205

Asn Ser Gly Arg Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
    210                 215                 220

Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Ser Leu Gln Met Ser
225                 230                 235                 240

Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Val Thr
                245                 250                 255

His Arg Arg Tyr Gly Ser Thr Phe Asp Ser Arg Gly Gln Gly Thr Leu
            260                 265                 270

Val Thr Val Ser Ser
        275
```

<210> 289
<211> 385
<212> DNA
<213> Artificial Sequence

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

<400> 289
cagctgcagc tgcaggagtc gggggggaggc tcggtacagc cgggggggtc tctgagactg 60

tcctgtgcag cctctggatt cacctttagc aactatgcca tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcagct atcactaata gtggtcgtag tacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtct 240

ttgcaaatga gcagcctgag agccgaagac acggccgtgt attactgtgc gcgcgttact 300

catcgtcgtt acggttctac tttcgattct cggggtcaag gtactctggt gaccgtctcc 360

tcaactagtg gccaggccgg ccagc 385

<210> 290
<211> 405
<212> DNA
<213> Artificial Sequence

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

<400> 290
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tctcctatga gctgactcag ccaccctcag cgtctgggac ccccgggcag 120

agggtcagca tctcttgttc tggaagcagc tccaacatcg ggagtaatac tgtaaactgg 180

taccaacagt tccccggaac ggcccccaaa ctcctcatcc atagtaataa tcagcggccc 240

tcaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggcccc agtctgagga tgaggctgat tattactgtg cagcttggga tgacagtgtg 360

aatggttatg tcttcggaac tgggaccaag gtcaccgtcc taggt 405

<210> 291
<211> 831
<212> DNA
<213> Artificial Sequence

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

<400> 291
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tctcctatga gctgactcag ccaccctcag cgtctgggac ccccgggcag 120

agggtcagca tctcttgttc tggaagcagc tccaacatcg ggagtaatac tgtaaactgg 180

taccaacagt tccccggaac ggcccccaaa ctcctcatcc atagtaataa tcagcggccc 240

tcaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggcccc agtctgagga tgaggctgat tattactgtg cagcttggga tgacagtgtg 360

aatggttatg tcttcggaac tgggaccaag gtcaccgtcc taggttctag aggtggtggt 420

ggtagcggcg gcggcggctc tggtggtggt ggatccctcg agatggccca gctgcagctg 480

caggagtcgg ggggaggctc ggtacagccg gggggtctc tgagactgtc ctgtgcagcc 540

tctggattca cctttagcaa ctatgccatg agctgggtcc gccaggctcc agggaagggg 600

ctggagtggg tctcagctat cactaatagt ggtcgtagta catactacgc agactccgtg 660

aagggccggt tcaccatctc cagagacaat tccaagaaca cgctgtcttt gcaaatgagc 720

agcctgagag ccgaagacac ggccgtgtat tactgtgcgc gcgttactca tcgtcgttac 780

ggttctactt tcgattctcg gggtcaaggt actctggtga ccgtctcctc a 831

<210> 292
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 292
Gly Gly Thr Phe Arg Ser Tyr Ala
1 5

<210> 293
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 293
Ile Ile Pro Met Leu Asp Ile Thr
1 5

<210> 294
<211> 14
<212> PRT
<213> Artificial Sequence

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

<400> 294
Ala Arg Thr Tyr Ser Arg Ser Pro Phe His Met Glu Asp Phe
1   5   10

<210> 295
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 295
Ser Ser Asn Ile Gly Gly Asn Thr
1   5

<210> 296
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 296
Arg Asn Asn
1

<210> 297
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 297
Ala Ala Trp Asp Ala Ser Arg Gln Gly Val
1   5   10

<210> 298
<211> 121
<212> PRT
<213> Artificial Sequence

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

<400> 298
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 Gly Thr Phe Arg Ser Tyr
            20   25   30

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

Gly Arg Ile Ile Pro Met Leu Asp Ile Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly 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 Thr Tyr Ser Arg Ser Pro Phe His Met Glu Asp Phe Trp Gly
            100                 105                 110

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

<210> 299
<211> 134
<212> PRT
<213> Artificial Sequence

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

<400> 299

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Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1               5                   10                  15

Thr Val Ala Gln Ala Ala Glu Leu Gln Pro Val Leu Thr Gln Pro Pro
            20                  25                  30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
        35                  40                  45

Ser Ser Ser Asn Ile Gly Gly Asn Thr Val Ser Trp Tyr Gln Gln Val
    50                  55                  60

Pro Gly Thr Ala Pro Arg Leu Leu Ile Phe Arg Asn Asn Gln Arg Pro
65                  70                  75                  80

Pro Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
                85                  90                  95

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
            100                 105                 110

Cys Ala Ala Trp Asp Ala Ser Arg Gln Gly Val Phe Gly Gly Gly Thr
```

115 120 125

Lys Leu Thr Val Leu Gly
130

<210> 300
<211> 276
<212> PRT
<213> Artificial Sequence

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

<400> 300
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Pro Val Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
35 40 45

Ser Ser Ser Asn Ile Gly Gly Asn Thr Val Ser Trp Tyr Gln Gln Val
50 55 60

Pro Gly Thr Ala Pro Arg Leu Leu Ile Phe Arg Asn Asn Gln Arg Pro
65 70 75 80

Pro Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
85 90 95

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
100 105 110

Cys Ala Ala Trp Asp Ala Ser Arg Gln Gly Val Phe Gly Gly Gly Thr
115 120 125

Lys Leu Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly
130 135 140

Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Gln Val Gln Leu Val
145 150 155 160

Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser Ser Val Lys Val Ser
165 170 175

Cys Lys Ala Ser Gly Gly Thr Phe Arg Ser Tyr Ala Ile Thr Trp Val
180 185 190

Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Arg Ile Ile Pro
195 200 205

Met Leu Asp Ile Thr Asn Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr
210 215 220

Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser
225 230 235 240

Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Thr Tyr Ser
245 250 255

Arg Ser Pro Phe His Met Glu Asp Phe Trp Gly Gln Gly Thr Leu Val
260 265 270

Thr Val Ser Ser
275

<210> 301
<211> 402
<212> DNA
<213> Artificial Sequence

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

<400> 301
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagcctgt gctgactcag ccaccctcag cgtctgggac ccccgggcag 120

agggtcacca tctcttgttc tggaagcagc tccaatatcg gaggtaacac tgtcagctgg 180

taccagcagg tcccaggaac ggcccccaga ctcctcattt ttaggaataa tcaacggccc 240

ccaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggctcc ggtctgagga tgaggctgat tattactgtg cagcatggga cgccagtcga 360

caaggggtgt tcggcggagg gaccaagctg accgtcctag gt 402

<210> 302
<211> 828
<212> DNA
<213> Artificial Sequence

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

<400> 302
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagcctgt gctgactcag ccaccctcag cgtctgggac ccccgggcag 120

agggtcacca tctcttgttc tggaagcagc tccaatatcg gaggtaacac tgtcagctgg 180

taccagcagg tcccaggaac ggcccccaga ctcctcattt ttaggaataa tcaacggccc 240

ccaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggctcc ggtctgagga tgaggctgat tattactgtg cagcatggga cgccagtcga 360

caaggggtgt tcggcggagg gaccaagctg accgtcctag gttctagagg tggtggtggt 420

agcggcggcg gcggctctgg tggtggtgga tccctcgaga tggcccaggt gcagctggtg 480

cagtctgggg ctgaggtgaa gaagcctggg tcctcggtga aggtctcctg caaggcttct 540

ggaggcacct tccgcagcta tgctatcacc tgggtgcgac aggcccctgg acaagggctt 600

gagtggatgg gaaggatcat ccctatgctt gatataacaa actacgcaca gaagttccag 660

ggcagagtca cgattaccgc ggacaaatcc acgagcacag cctacatgga gctgagcagc 720

ctgagatctg aggacacggc cgtgtattac tgtgcgcgca cttactctcg ttctccgttc 780

catatggaag atttctgggg tcaaggtact ctggtgaccg tctcctca 828

<210> 303
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 303
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 304
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 304
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 305
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 305
Ala Arg Lys Tyr Gln Asp Val

1 5

<210> 306
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 306
Ser Ser Asn Ile Gly Ser Asn Thr
1 5

<210> 307
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 307
Arg Asn Asn
1

<210> 308
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 308
Ala Ala Trp Asp Asp Ser Leu Ser Gly Arg Val
1 5 10

<210> 309
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 309
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 310
<211> 114
<212> PRT
<213> Artificial Sequence

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

<400> 310
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Ser Ser

<210> 311
<211> 135
<212> PRT
<213> Artificial Sequence

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

<400> 311
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
35 40 45

Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu
50 55 60

Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asn Asn Gln Arg Pro

65 70 75 80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
85 90 95

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
100 105 110

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

Thr Lys Leu Thr Val Leu Gly
130 135

<210> 312
<211> 270
<212> PRT
<213> Artificial Sequence

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

<400> 312
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
35 40 45

Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu
50 55 60

Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asn Asn Gln Arg Pro
65 70 75 80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
85 90 95

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
100 105 110

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

Thr Lys Leu Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly
130 135 140

```
Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Glu Val Gln Leu
145                 150                 155                 160

Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
                165                 170                 175

Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp
            180                 185                 190

Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Ser
        195                 200                 205

Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
    210                 215                 220

Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Asn
225                 230                 235                 240

Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Lys Tyr
                245                 250                 255

Gln Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            260                 265                 270
```

<210> 313
<211> 342
<212> DNA
<213> Artificial Sequence

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

<400> 313
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca atgccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gcgcaaatac 300

caggatgttt ggggtcaagg tactctggtg accgtctcct ca 342

<210> 314
<211> 405
<212> DNA
<213> Artificial Sequence

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

<400> 314
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt gctgacgcag ccgccctcag cgtctgggac ccccgggcag 120

agggtcacca tctcttgttc tggaagcagc tccaacatcg gaagtaatac tgtaaactgg 180

taccagcagc tcccaggaac ggcccccaaa ctcctcatct ataggaataa tcagcggccc 240

tcaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggctcc ggtccgagga tgaggctgat tattactgtg cagcatggga tgacagcctg 360

agtggtaggg tgttcggcgg agggaccaag ctgaccgtcc taggt 405

<210> 315
<211> 810
<212> DNA
<213> Artificial Sequence

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

<400> 315
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt gctgacgcag ccgccctcag cgtctgggac ccccgggcag 120

agggtcacca tctcttgttc tggaagcagc tccaacatcg gaagtaatac tgtaaactgg 180

taccagcagc tcccaggaac ggcccccaaa ctcctcatct ataggaataa tcagcggccc 240

tcaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggctcc ggtccgagga tgaggctgat tattactgtg cagcatggga tgacagcctg 360

agtggtaggg tgttcggcgg agggaccaag ctgaccgtcc taggttctag aggtggtggt 420

ggtagcggcg gcggcggctc tggtggtggt ggatccctcg agatggccga ggtgcagctg 480

gtggagtctg ggggaggctt ggtacagcct ggggggtccc tgagactctc ctgtgcagcc 540

tctggattca cctttagcag ctatgccatg agctgggtcc gccaggctcc agggaagggg 600

ctggagtggg tctcagctat tagtggtagt ggtggtagca catactacgc agactccgtg 660

aagggccggt tcaccatctc cagagacaat gccaagaaca cgctgtatct gcaaatgaac 720

agcctgagag ccgaggacac ggccgtatat tactgtgcgc gcaaatacca ggatgtttgg 780

ggtcaaggta ctctggtgac cgtctcctca 810

<210> 316
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 316
Gly Phe Ser Phe Ser Gly Thr Ala
1 5

<210> 317
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 317
Ile Ser Ser Thr Gly Arg Ser Thr
1 5

<210> 318
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 318
Ala Arg Pro Val Ser Ser Met Thr Leu Ser Ile Gln Ser Asp Gly
1 5 10 15

<210> 319
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 319
Ser Ser Asn Ile Gly Ala Gly Tyr Asp
1 5

<210> 320
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 320
Gly Asn Ser
1

<210> 321
<211> 11

<212> PRT
<213> Artificial Sequence

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

<400> 321
Gln Ser Tyr Asp Ser Ser Leu Arg Gly Tyr Val
1 5 10

<210> 322
<211> 122
<212> PRT
<213> Artificial Sequence

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

<400> 322
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

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

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

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

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

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

Ala Arg Pro Val Ser Ser Met Thr Leu Ser Ile Gln Ser Asp Gly Trp
100 105 110

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

<210> 323
<211> 136
<212> PRT
<213> Artificial Sequence

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

<400> 323

```
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1               5                   10                  15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Leu Thr Gln Pro Pro
            20                  25                  30

Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly
        35                  40                  45

Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His Trp Tyr Gln Gln
    50                  55                  60

Leu Pro Gly Arg Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn Arg
65                  70                  75                  80

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser
                85                  90                  95

Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr
            100                 105                 110

Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Arg Gly Tyr Val Phe Gly Thr
        115                 120                 125

Gly Thr Lys Val Thr Val Leu Gly
    130                 135
```

<210> 324
<211> 279
<212> PRT
<213> Artificial Sequence

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

<400> 324

```
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1               5                   10                  15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Leu Thr Gln Pro Pro
            20                  25                  30

Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly
        35                  40                  45

Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His Trp Tyr Gln Gln
    50                  55                  60

Leu Pro Gly Arg Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn Arg
65                  70                  75                  80
```

```
Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser
                85                  90                  95

Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr
            100                 105                 110

Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Arg Gly Tyr Val Phe Gly Thr
        115                 120                 125

Gly Thr Lys Val Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Gln Val Gln
145                 150                 155                 160

Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg Ser Leu Arg
                165                 170                 175

Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Gly Thr Ala Met His
            180                 185                 190

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Thr Ile
        195                 200                 205

Ser Ser Thr Gly Arg Ser Thr Tyr Tyr Arg Asp Ser Val Lys Gly Arg
    210                 215                 220

Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met
225                 230                 235                 240

Asn Ser Leu Arg Gly Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Pro
                245                 250                 255

Val Ser Ser Met Thr Leu Ser Ile Gln Ser Asp Gly Trp Gly Gln Gly
            260                 265                 270

Thr Leu Val Thr Val Ser Ser
        275
```

<210> 325
<211> 366
<212> DNA
<213> Artificial Sequence

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

<400> 325

caggtgcagc tggtgcagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggatt cagctttagt ggcactgcca tgcactgggt ccgccaggct 120

ccagggaagg ggctggaatg ggtctcgact attagtagta ctgggcgtag cacatactac 180

agagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag aggcgaggac acggccgtat attactgtgc gcgcccggtt 300

tcttctatga ctctgtctat ccagtctgat ggttggggtc aaggtactct ggtgaccgtc 360

tcctca 366

<210> 326
<211> 408
<212> DNA
<213> Artificial Sequence

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

<400> 326
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt gttgacgcag ccgccctcag tgtctggggc cccagggcag 120

agggtcacca tctcctgcac tgggagcagc tccaacatcg gggcaggtta tgatgtacac 180

tggtaccagc agcttccagg aagagccccc aaactcctca tctatggtaa cagcaatcgg 240

ccctcagggg tccctgaccg attctctggc tccaagtctg gcacctcagc ctccctggcc 300

atcactgggc tccaggctga ggatgaggct gattattact gccagtccta tgacagcagc 360

ctgagaggtt atgtcttcgg aactgggacc aaggtcaccg tcctaggt 408

<210> 327
<211> 837
<212> DNA
<213> Artificial Sequence

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

<400> 327
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt gttgacgcag ccgccctcag tgtctggggc cccagggcag 120

agggtcacca tctcctgcac tgggagcagc tccaacatcg gggcaggtta tgatgtacac 180

tggtaccagc agcttccagg aagagccccc aaactcctca tctatggtaa cagcaatcgg 240

ccctcagggg tccctgaccg attctctggc tccaagtctg gcacctcagc ctccctggcc 300

atcactgggc tccaggctga ggatgaggct gattattact gccagtccta tgacagcagc 360

ctgagaggtt atgtcttcgg aactgggacc aaggtcaccg tcctaggttc tagaggtggt 420

ggtggtagcg gcggcggcgg ctctggtggt ggtggatccc tcgagatggc ccaggtgcag 480

ctggtgcagt ctgggggagg cgtggtccag cctgggaggt ccctgagact ctcctgtgca 540

gcctctggat tcagctttag tggcactgcc atgcactggg tccgccaggc tccagggaag 600

gggctggaat gggtctcgac tattagtagt actgggcgta gcacatacta cagagactcc 660

gtgaagggcc ggttcaccat ctccagagac aattccaaga acacgctgta tctgcaaatg 720

aacagcctga gaggcgagga cacggccgta tattactgtg cgcgcccggt ttcttctatg 780

actctgtcta tccagtctga tggttggggt caaggtactc tggtgaccgt ctcctca 837

<210> 328
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 328
Gly Tyr Thr Phe Thr Ser Tyr Tyr
1 5

<210> 329
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 329
Ile Asn Pro Ser Gly Gly Ser Thr
1 5

<210> 330
<211> 23
<212> PRT
<213> Artificial Sequence

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

<400> 330
Ala Arg Gly Gln Lys Tyr His Ser Gln Tyr Ser Arg Gly Gly Thr Gly
1 5 10 15

Gly Gly Met Thr Gln Asp Met
20

<210> 331
<211> 8
<212> PRT

<213> Artificial Sequence

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

<400> 331
Ser Ser Asn Ile Gly Asn Asn Tyr
1 5

<210> 332
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 332
Asp Asn Asn
1

<210> 333
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 333
Gly Thr Trp Asp Ser Ser Leu Arg Asn Trp Val
1 5 10

<210> 334
<211> 130
<212> PRT
<213> Artificial Sequence

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

<400> 334
Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

```
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val 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 Gly Gln Lys Tyr His Ser Gln Tyr Ser Arg Gly Gly Thr Gly
            100                 105                 110

Gly Gly Met Thr Gln Asp Met Trp Gly Gln Gly Thr Leu Val Thr Val
        115                 120                 125

Ser Ser
    130
```

<210> 335
<211> 135
<212> PRT
<213> Artificial Sequence

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

<400> 335

```
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1               5                   10                  15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Val Thr Gln Pro Pro
            20                  25                  30

Ser Val Ser Ala Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
        35                  40                  45

Gly Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser Trp Phe Gln Gln Leu
    50                  55                  60

Pro Arg Thr Ala Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro
65                  70                  75                  80

Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
                85                  90                  95

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

Cys Gly Thr Trp Asp Ser Ser Leu Arg Asn Trp Val Phe Gly Gly Gly
        115                 120                 125

Thr Lys Leu Thr Val Leu Gly
```

130 135

<210> 336
<211> 286
<212> PRT
<213> Artificial Sequence

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

<400> 336
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Val Thr Gln Pro Pro
20 25 30

Ser Val Ser Ala Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
35 40 45

Gly Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser Trp Phe Gln Gln Leu
50 55 60

Pro Arg Thr Ala Pro Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro
65 70 75 80

Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
85 90 95

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

Cys Gly Thr Trp Asp Ser Ser Leu Arg Asn Trp Val Phe Gly Gly Gly
115 120 125

Thr Lys Leu Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Gln Met Gln Leu
145 150 155 160

Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val
165 170 175

Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr Tyr Met His Trp
180 185 190

Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Ile Ile Asn
195 200 205

```
Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln Gly Arg Val
    210                 215                 220

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

Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Gln
                245                 250                 255

Lys Tyr His Ser Gln Tyr Ser Arg Gly Gly Thr Gly Gly Gly Met Thr
            260                 265                 270

Gln Asp Met Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        275                 280                 285
```

<210> 337
<211> 390
<212> DNA
<213> Artificial Sequence

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

<400> 337
cagatgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaata atcaacccta gtggtggtag cacaagctac 180

gcacaaaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcggtcag 300

aaataccatt ctcagtactc tcgtggtggt actggtggtg gtatgactca ggatatgtgg 360

ggtcaaggta ctctggtgac cgtctcctca 390

<210> 338
<211> 405
<212> DNA
<213> Artificial Sequence

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

<400> 338
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt cgtgacgcag ccgccctctg tgtctgcggc cccaggacag 120

agggtcacca tctcctgctc tggaggtagt tccaacattg ggaataatta tgtttcctgg 180

ttccaacaac tcccacgaac agcccccaaa ctcctcattt atgacaataa taagcgaccc 240

tcagggattc ctgaccgatt ctctggctcc aagtctggca cgtcagccgc cctggacatc 300

accgttctcc agactgggga cgaggccgat tattactgcg gaacttggga tagcagcctg 360

agaaattggg tgttcggcgg agggaccaag ctgaccgtcc taggt 405

<210> 339
<211> 858
<212> DNA
<213> Artificial Sequence

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

<400> 339
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt cgtgacgcag ccgccctctg tgtctgcggc cccaggacag 120

agggtcacca tctcctgctc tggaggtagt tccaacattg ggaataatta tgtttcctgg 180

ttccaacaac tcccacgaac agcccccaaa ctcctcattt atgacaataa taagcgaccc 240

tcagggattc ctgaccgatt ctctggctcc aagtctggca cgtcagccgc cctggacatc 300

accgttctcc agactgggga cgaggccgat tattactgcg gaacttggga tagcagcctg 360

agaaattggg tgttcggcgg agggaccaag ctgaccgtcc taggttctag aggtggtggt 420

ggtagcggcg gcggcggctc tggtggtggt ggatccctcg agatggccca gatgcagctg 480

gtgcagtctg gggctgaggt gaagaagcct ggggcctcag tgaaggtttc ctgcaaggca 540

tctggataca ccttcaccag ctactatatg cactgggtgc gacaggcccc tggacaaggg 600

cttgagtgga tgggaataat caaccctagt ggtggtagca caagctacgc acaaaagttc 660

cagggcagag tcaccatgac cagggacacg tccacgagca cagtctacat ggagctgagc 720

agcctgagat ctgaggacac ggccgtgtat tactgtgcgc gcggtcagaa ataccattct 780

cagtactctc gtggtggtac tggtggtggt atgactcagg atatgtgggg tcaaggtact 840

ctggtgaccg tctcctca 858

<210> 340
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 340
Gly Tyr Thr Phe Ser Arg Tyr Tyr
1 5

<210> 341
<211> 8

<212> PRT
<213> Artificial Sequence

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

<400> 341
Met Asn Pro Asn Ser Gly Asn Thr
1 5

<210> 342
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 342
Ala Arg Gly Arg Tyr His Val Ile Asp Tyr
1 5 10

<210> 343
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 343
Ser Ser Asp Val Gly Gly Tyr Asn His
1 5

<210> 344
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 344
Glu Val Thr
1

<210> 345
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 345

Ser Ser Tyr Ala Gly Ser Ala His Trp Val
1 5 10

<210> 346
<211> 117
<212> PRT
<213> Artificial Sequence

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

<400> 346
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile 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 Gly Arg Tyr His Val Ile Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 347
<211> 135
<212> PRT
<213> Artificial Sequence

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

<400> 347
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Ser Pro Gly Gln Ser Leu Thr Ile Ser Cys Thr Gly
35 40 45

Thr Ser Ser Asp Val Gly Gly Tyr Asn His Val Ser Trp Tyr Gln Gln
50 55 60

Tyr Pro Gly Lys Ala Pro Lys Leu Met Ile Tyr Glu Val Thr Lys Arg
65 70 75 80

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr
85 90 95

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

Tyr Cys Ser Ser Tyr Ala Gly Ser Ala His Trp Val Phe Gly Gly Gly
115 120 125

Thr Lys Leu Thr Val Leu Gly
130 135

<210> 348
<211> 273
<212> PRT
<213> Artificial Sequence

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

<400> 348
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ser Val Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Ser Pro Gly Gln Ser Leu Thr Ile Ser Cys Thr Gly
35 40 45

Thr Ser Ser Asp Val Gly Gly Tyr Asn His Val Ser Trp Tyr Gln Gln
50 55 60

Tyr Pro Gly Lys Ala Pro Lys Leu Met Ile Tyr Glu Val Thr Lys Arg
65 70 75 80

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr
85 90 95

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

```
Tyr Cys Ser Ser Tyr Ala Gly Ser Ala His Trp Val Phe Gly Gly Gly
        115                 120                 125

Thr Lys Leu Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Glu Val Gln Leu
145                 150                 155                 160

Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val
                165                 170                 175

Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Arg Tyr Tyr Ile His Trp
            180                 185                 190

Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Met Asn
        195                 200                 205

Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe Gln Gly Arg Val
    210                 215                 220

Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser
225                 230                 235                 240

Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Arg
                245                 250                 255

Tyr His Val Ile Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            260                 265                 270

Ser
```

<210> 349
<211> 351
<212> DNA
<213> Artificial Sequence

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

<400> 349
gaggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtt 60

tcctgcaagg catctggata caccttcagc aggtactata tacactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atgaacccta acagtggtaa cacaggctat 180

gcacagaagt tccagggcag agtcaccatg accaggaaca cctccataag cacagcctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcggtcgt 300

taccatgtta tcgattactg gggtcaaggt actctggtga ccgtctcctc a 351

<210> 350
<211> 405
<212> DNA
<213> Artificial Sequence

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

<400> 350
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt gttgactcag ccaccctccg cgtccgggtc tcctggacag 120

tcactcacca tctcctgcac tggaaccagc agtgacgttg gtggttataa ccatgtctcc 180

tggtaccaac agtacccagg caaagccccc aaactcatga tttatgaggt cactaagcgg 240

ccctcagggg tccctgatcg cttctctggc tccaagtctg gcaacacggc ctccctgacc 300

gtctctgggc tccaggctga ggatgaggct gattattact gcagctcata tgcaggcagc 360

gcccattggg tgttcggcgg agggaccaag ctgaccgtcc taggt 405

<210> 351
<211> 819
<212> DNA
<213> Artificial Sequence

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

<400> 351
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccagtctgt gttgactcag ccaccctccg cgtccgggtc tcctggacag 120

tcactcacca tctcctgcac tggaaccagc agtgacgttg gtggttataa ccatgtctcc 180

tggtaccaac agtacccagg caaagccccc aaactcatga tttatgaggt cactaagcgg 240

ccctcagggg tccctgatcg cttctctggc tccaagtctg gcaacacggc ctccctgacc 300

gtctctgggc tccaggctga ggatgaggct gattattact gcagctcata tgcaggcagc 360

gcccattggg tgttcggcgg agggaccaag ctgaccgtcc taggttctag aggtggtggt 420

ggtagcggcg gcggcggctc tggtggtggt ggatccctcg agatggccga ggtccagctg 480

gtgcagtctg gggctgaggt gaagaagcct ggggcctcag tgaaggtttc ctgcaaggca 540

tctggataca ccttcagcag gtactatata cactgggtgc gacaggcccc tggacaaggg 600

cttgagtgga tgggatggat gaaccctaac agtggtaaca caggctatgc acagaagttc 660

cagggcagag tcaccatgac caggaacacc tccataagca cagcctacat ggagctgagc 720

agcctgagat ctgaggacac ggccgtgtat tactgtgcgc gcggtcgtta ccatgttatc 780

gattactggg gtcaaggtac tctggtgacc gtctcctca 819

<210> 352
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 352
Gly Tyr Thr Phe Asn Thr Tyr Tyr
1 5

<210> 353
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 353
Ile Asn Pro Asn Asn Gly Gly Thr
1 5

<210> 354
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 354
Ala Arg Ser Tyr Asp Tyr
1 5

<210> 355
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 355
Ser Ser Asn Ile Gly Ser Asn Tyr
1 5

<210> 356
<211> 3
<212> PRT

<213> Artificial Sequence

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

<400> 356
Arg Asn Asn
1

<210> 357
<211> 11
<212> PRT
<213> Artificial Sequence

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

<400> 357
Ala Ala Trp Asp Asp Ser Leu Ser Gly Arg Val
1 5 10

<210> 358
<211> 113
<212> PRT
<213> Artificial Sequence

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

<400> 358
Gln Leu 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 Asn Thr Tyr
20 25 30

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

Gly Arg Ile Asn Pro Asn Asn Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

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

Ser

<210> 359
<211> 135
<212> PRT
<213> Artificial Sequence

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

<400> 359
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ala Val Leu Thr Gln Pro Pro
20 25 30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
35 40 45

Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Tyr Trp Tyr Gln Gln Leu
50 55 60

Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asn Asn Gln Arg Pro
65 70 75 80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
85 90 95

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
100 105 110

Cys Ala Ala Trp Asp Asp Ser Leu Ser Gly Arg Val Phe Gly Thr Gly
115 120 125

Thr Lys Val Thr Val Leu Gly
130 135

<210> 360
<211> 269
<212> PRT
<213> Artificial Sequence

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

<400> 360
Met Lys Lys Thr Ala Ile Ala Ile Ala Val Ala Leu Ala Gly Phe Ala
1 5 10 15

Thr Val Ala Gln Ala Ala Glu Leu Gln Ala Val Leu Thr Gln Pro Pro

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            20                  25                  30

Ser Ala Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly
        35                  40                  45

Ser Ser Ser Asn Ile Gly Ser Asn Tyr Val Tyr Trp Tyr Gln Gln Leu
    50                  55                  60

Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asn Asn Gln Arg Pro
65                  70                  75                  80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
                85                  90                  95

Ser Leu Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr
            100                 105                 110

Cys Ala Ala Trp Asp Asp Ser Leu Ser Gly Arg Val Phe Gly Thr Gly
        115                 120                 125

Thr Lys Val Thr Val Leu Gly Ser Arg Gly Gly Gly Gly Ser Gly Gly
    130                 135                 140

Gly Gly Ser Gly Gly Gly Gly Ser Leu Glu Met Ala Gln Leu Gln Leu
145                 150                 155                 160

Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser Ser Val Lys Val
                165                 170                 175

Ser Cys Lys Ala Ser Gly Tyr Thr Phe Asn Thr Tyr Tyr Leu His Trp
            180                 185                 190

Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Arg Ile Asn
        195                 200                 205

Pro Asn Asn Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln Gly Arg Val
    210                 215                 220

Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr Met Glu Leu Ser
225                 230                 235                 240

Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg Ser Tyr
                245                 250                 255

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            260                 265
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<210> 361

<211> 339
<212> DNA
<213> Artificial Sequence

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

<400> 361
cagctgcagc tggtgcaatc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggata caccttcaac acctactatc tgcactgggt acgacaggcc 120

cctggacaag ggcttgagtg gatgggacgg atcaacccta acaatggtgg cacaaactat 180

gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gcgctcttac 300

gattactggg gtcaaggtac tctggtgacc gtctcctca 339

<210> 362
<211> 405
<212> DNA
<213> Artificial Sequence

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

<400> 362
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccaggctgt gctgactcag ccaccctcag cgtctgggac ccccgggcag 120

agggtcacca tctcttgttc tggaagcagc tccaacatcg gaagtaatta tgtatactgg 180

taccagcagc tcccaggaac ggcccccaaa ctcctcatct ataggaataa tcagcggccc 240

tcaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggctcc ggtccgagga tgaggctgat tattactgtg cagcatggga tgacagcctg 360

agtggtcggg tcttcggaac tgggaccaag gtcaccgtcc taggt 405

<210> 363
<211> 807
<212> DNA
<213> Artificial Sequence

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

<400> 363
atgaaaaaga cagctatcgc gattgcagtg gcactggctg gtttcgctac cgtggcccag 60

gcggccgagc tccaggctgt gctgactcag ccaccctcag cgtctgggac ccccgggcag 120

agggtcacca tctcttgttc tggaagcagc tccaacatcg gaagtaatta tgtatactgg 180

taccagcagc tcccaggaac ggcccccaaa ctcctcatct ataggaataa tcagcggccc 240

tcaggggtcc ctgaccgatt ctctggctcc aagtctggca cctcagcctc cctggccatc 300

agtgggctcc ggtccgagga tgaggctgat tattactgtg cagcatggga tgacagcctg 360

agtggtcggg tcttcggaac tgggaccaag gtcaccgtcc taggttctag aggtggtggt 420

ggtagcggcg gcggcggctc tggtggtggt ggatccctcg agatggccca gctgcagctg 480

gtgcaatctg gggctgaggt gaagaagcct gggtcctcgg tgaaggtctc ctgcaaggct 540

tctggataca ccttcaacac ctactatctg cactgggtac gacaggcccc tggacaaggg 600

cttgagtgga tgggacggat caaccctaac aatggtggca caaactatgc acagaagttt 660

cagggcaggg tcaccatgac cagggacacg tccatcaaca cagcctacat ggagctgagc 720

aggctgagat ctgacgacac ggccgtgtat tactgtgcgc gctcttacga ttactggggt 780

caaggtactc tggtgaccgt ctcctca 807

<210> 364
<211> 45
<212> DNA
<213> Artificial Sequence

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

<400> 364
ggtggaggtg gatcaggtgg aggtggatct ggtggaggtg gatct 45

<210> 365
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 365
Gly Gly Gly Gly Ser
1 5

<210> 366
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 366
Ser Gly Gly Ser Gly Gly Ser
1 5

<210> 367

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

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

<400> 367
Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5

<210> 368
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 368
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 369
<211> 18
<212> PRT
<213> Artificial Sequence

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

<400> 369
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly
1 5 10 15

Gly Ser

<210> 370
<211> 20
<212> PRT
<213> Artificial Sequence

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

<400> 370
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 371

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

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

<400> 371
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 372
<211> 30
<212> PRT
<213> Artificial Sequence

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

<400> 372
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25 30

<210> 373
<211> 35
<212> PRT
<213> Artificial Sequence

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

<400> 373
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser
35

<210> 374
<211> 15
<212> PRT
<213> Artificial Sequence

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

peptide

<400> 374
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
1 5 10 15

<210> 375
<211> 24
<212> PRT
<213> Artificial Sequence

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

<400> 375
Gly Gly Gly Gly Ser Gly Gly Gly Ser Glu Pro Lys Ser Cys Asp Lys
1 5 10 15

Thr His Thr Cys Pro Pro Cys Pro
20

<210> 376
<211> 62
<212> PRT
<213> Artificial Sequence

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

<400> 376
Glu Leu Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro Arg Cys
1 5 10 15

Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro
20 25 30

Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu
35 40 45

Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro
50 55 60

<210> 377
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 377
Gly Ser Gly Ser Gly Ser
1 5

<210> 378
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 378
Ala Ala Ala
1

<210> 379
<211> 25
<212> PRT
<213> Artificial Sequence

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

<400> 379
Thr Ser Gly Gln Ala Gly Gln His His His His His His Gly Ala Tyr
1 5 10 15

Pro Tyr Asp Val Pro Asp Tyr Ala Ser
20 25

<210> 380
<211> 75
<212> DNA
<213> Artificial Sequence

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

<400> 380
actagtggcc aggccggcca gcaccatcac catcaccatg gcgcataccc gtacgacgtt 60

ccggactacg cttct 75

<210> 381
<211> 363
<212> DNA
<213> Artificial Sequence

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

<400> 381
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttccgc agctatgcta tcacctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaagg atcatcccta tgcttgatat aacaaactac 180

gcacagaagt tccagggcag agtcacgatt accgcggaca aatccacgag cacagcctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gcgcacttac 300

tctcgttctc cgttccatat ggaagatttc tggggtcaag gtactctggt gaccgtctcc 360

tca 363

<210> 382
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 382
Cys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu
1 5 10 15

Cys Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp
20 25 30

Cys

<210> 383
<211> 10
<212> PRT
<213> Homo sapiens

<400> 383
Cys Asp Ala Glu Gly Pro Trp Gly Ile Ile
1 5 10

<210> 384
<211> 8
<212> PRT
<213> Homo sapiens

<400> 384
Met Phe Val Asn Met Thr Pro Cys
1 5

<210> 385
<211> 9
<212> PRT
<213> Homo sapiens

<400> 385
Pro Gln Phe Gln Arg Gln Pro Gln Trp
1 5

<210> 386
<211> 13
<212> PRT

<213> Homo sapiens

<400> 386
Cys Ile Glu Ser Thr Gly Asp Tyr Phe Leu Leu Cys Asp
1 5 10

<210> 387
<211> 11
<212> PRT
<213> Homo sapiens

<400> 387
Asn Gln Gln Thr Ala Pro Val Arg Tyr Phe Leu
1 5 10

<210> 388
<211> 8
<212> PRT
<213> Homo sapiens

<400> 388
Gly Asp Tyr Phe Leu Leu Cys Asp
1 5

<210> 389
<211> 11
<212> PRT
<213> Homo sapiens

<400> 389
Met Phe Val Asn Met Thr Pro Cys Gln Leu Asn
1 5 10

<210> 390
<211> 11
<212> PRT
<213> Homo sapiens

<400> 390
Gly Asn Pro Gln Phe Gln Arg Gln Pro Gln Trp
1 5 10

<210> 391
<211> 9
<212> PRT
<213> Homo sapiens

<400> 391
Leu Cys Asp Ala Glu Gly Pro Trp Gly
1 5

<210> 392
<211> 14
<212> PRT
<213> Homo sapiens

<400> 392
Gln Phe Gln Arg Gln Pro Gln Trp Asp Asp Pro Val Val Cys

1 5 10

<210> 393
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 393
Cys Met Asp Tyr Asp Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg
1 5 10 15

Cys Trp Ala Ile Gly Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro
20 25 30

Cys

<210> 394
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 394
Cys Met Asp Tyr Asp Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg
1 5 10 15

Cys Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys
20 25 30

Cys

<210> 395
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 395
Cys Met Asp Tyr Asp Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg
1 5 10 15

Cys Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp
20 25 30

Cys

<210> 396
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 396
Cys Met Asp Tyr Asp Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg
1 5 10 15

Cys Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp Ile Lys Thr Ser
20 25 30

Cys

<210> 397
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 397
Cys Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu
1 5 10 15

Cys Trp Ala Ile Gly Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro
20 25 30

Cys

<210> 398
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 398
Cys Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu
1 5 10 15

Cys Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys

20 25 30

Cys

<210> 399
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 399
Cys Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu
1 5 10 15

Cys Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp
20 25 30

Cys

<210> 400
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 400
Cys Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu
1 5 10 15

Cys Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp Ile Lys Thr Ser
20 25 30

Cys

<210> 401
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 401
Cys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu
1 5 10 15

Cys Trp Ala Ile Gly Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro
            20   25   30

Cys

<210> 402
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 402
Cys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu
1   5   10   15

Cys Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys
            20   25   30

Cys

<210> 403
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 403
Cys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu
1   5   10   15

Cys Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp Ile Lys Thr Ser
            20   25   30

Cys

<210> 404
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 404
Cys Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu Gly Cys Lys Val

1 5 10 15

Cys Trp Ala Ile Gly Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro
20 25 30

Cys

<210> 405
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 405
Cys Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu Gly Cys Lys Val
1 5 10 15

Cys Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys
20 25 30

Cys

<210> 406
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 406
Cys Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu Gly Cys Lys Val
1 5 10 15

Cys Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp
20 25 30

Cys

<210> 407
<211> 33
<212> PRT
<213> Artificial Sequence

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

<400> 407
Cys Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu Gly Cys Lys Val
1   5   10   15

Cys Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp Ile Lys Thr Ser
            20   25   30

Cys

<210> 408
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 408
Met Asp Tyr Asp Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg
1   5   10   15

<210> 409
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 409
Phe Lys Val Lys Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu
1   5   10   15

<210> 410
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 410
Leu Ser Ser Glu Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu
1   5   10   15

<210> 411
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 411
Arg Glu Arg Val Glu Asp Leu Phe Glu Tyr Glu Gly Cys Lys Val
1 5 10 15

<210> 412
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 412
Trp Ala Ile Gly Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro
1 5 10 15

<210> 413
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 413
Cys Ile Phe Ala Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys
1 5 10 15

<210> 414
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 414
Glu Leu Leu Thr Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp
1 5 10 15

<210> 415
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 415
Ser Glu Pro Ile Phe His Cys Arg Gln Glu Asp Ile Lys Thr Ser
1 5 10 15