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SEQUENCE LISTING

<110> NOVARTIS AG
DANA-FARBER CANCER INSTITUTE, INC.
PRESIDENT AND FELLOWS OF HARVARD COLLEGE

<120> ANTIBODY MOLECULES TO PD-L1 AND USES THEREOF

<130> C2160-7003WO

<140>
<141>

<150> 62/213,076
<151> 2015-09-01

<150> 62/198,545
<151> 2015-07-29

<150> 62/094,847
<151> 2014-12-19

<150> 62/063,852
<151> 2014-10-14

<160> 362

<170> PatentIn version 3.5

<210> 1
<211> 5
<212> PRT
<213> Artificial sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 1
Ser Tyr Trp Met Tyr
1 5

<210> 2
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 2
Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Asn

<210> 3
<211> 11
<212> PRT
<213> Artificial sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 3

Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr
1 5 10

<210> 4

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 4

Gly Tyr Thr Phe Thr Ser Tyr
1 5

<210> 5

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 5

Asp Pro Asn Ser Gly Ser
1 5

<210> 6

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 6

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

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

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

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

Lys Asn Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
Page 2

65 70 75 80

Met Gln Leu Ser Ser₈₅ Leu Thr Ser Glu Asp₉₀ Ser Ala Val Tyr Tyr₉₅ Cys

Ala Arg Asp Tyr₁₀₀ Arg Lys Gly Leu Tyr₁₀₅ Ala Met Asp Tyr Trp₁₁₀ Gly Gln

Gly Thr Ser₁₁₅ Val Thr Val Ser Ser₁₂₀

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

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

<210> 9
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 9
Lys Ala Ser Gln Asp Val Gly Thr Ala Val Ala
1 5 10

<210> 10
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 10
Trp Ala Ser Thr Arg His Thr
1 5

<210> 11
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 11
Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
1 5

<210> 12
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 12
Ser Gln Asp Val Gly Thr Ala
1 5

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<210> 13
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 13
Trp Ala Ser
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<210> 14
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<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 14
Tyr Asn Ser Tyr Pro Leu
1 5

<210> 15
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 15
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atcacctgca aggccagtca ggatgtgggt actgctgtag cctggtatca acagaaacca 120
gggcaatctc ctaaactact gatttactgg gcatccaccc ggcacactgg agtccctgat 180
cgcttcacag gcagtggatc tgggacagat ttcactctca ccattagcaa tgtgcagtct 240
gaagacttgg cagattatct ctgtcagcag tataacagct atcctctcac gttcggtgct 300
gggtccaagc tggagctgaa a 321

<210> 16
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 16
Glu Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala

1 5 10^{-SL} 15
 Ser Val Lys Leu₂₀ Ser Cys Lys Ala Ser₂₅ Gly Tyr Thr Phe Thr₃₀ Ser Tyr
 Trp Met Tyr₃₅ Trp Val Lys Gln Gly₄₀ Pro Gly Arg Gly₄₅ Leu Glu Trp Ile
 Gly Arg₅₀ Ile Asp Pro Asn Ser₅₅ Gly Ser Thr Lys Tyr₆₀ Asn Glu Lys Phe
 Lys Asn Lys Ala Thr Leu₇₀ Thr Val Asp Lys₇₅ Ser Ser Ser Thr Ala Tyr₈₀
 Met Gln Leu Ser Ser₈₅ Leu Thr Ser Glu Asp₉₀ Ser Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Asp Tyr₁₀₀ Arg Lys Gly Leu Tyr₁₀₅ Ala Met Asp Tyr Trp₁₁₀ Gly Gln
 Gly Thr Thr₁₁₅ Val Thr Val Ser Ser₁₂₀

<210> 17
 <211> 107
 <212> PRT
 <213> Artificial sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 17
 Asp Ile Met Met₅ Thr Gln Ser His Lys Phe₁₀ Met Ser Thr Ser Val₁₅ Gly

Asp Arg Val Ser₂₀ Ile Thr Cys Lys Ala₂₅ Ser Gln Asp Val Gly₃₀ Thr Ala

Val Ala Trp₃₅ Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys₄₅ Leu Leu Ile

Tyr Trp₅₀ Ala Ser Thr Arg His₅₅ Thr Gly Val Pro Asp₆₀ Arg Phe Thr Gly

Ser Gly Ser Gly Thr Asp₇₀ Phe Thr Leu Thr Ile₇₅ Ser Asn Val Gln Ser₈₀

Glu Asp Leu Ala Asp₈₅ Tyr Phe Cys Gln Gln₉₀ Tyr Asn Ser Tyr Pro₉₅ Leu

Thr Phe Gly Gln₁₀₀ Gly Thr Lys Val Glu₁₀₅ Ile Lys

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<210> 18
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 18
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

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

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 19
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 19
caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggcta caccttcacc agttactgga tgtactgggt gcgacaggcc 120
actggacaag ggcttgagtg gatgggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag attcaccatc tccagagatg attcaaagaa cacggcgtat 240
ctgcaaata acagcctgaa aaccgaggac acggccgtgt attactgtgc aaggggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

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<210> 20
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 20
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

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

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

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

<210> 21
 <211> 1341
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 21
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tcctgcaagg cttctggcta caccttcacc agttactgga tgtactgggt gcgacaggcc 120
actggacaag ggcttgagt gatgggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag attcaccatc tccagagatg attcaaagaa cacggcgatat 240
ctgcaaatga acagcctgaa aaccgaggac acggccgtgt attactgtgc aagggaactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
gcttcacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc 600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctgggggg accatcagtc 720
ttcctgttcc ccccaaaacc caaggacact ctcagtatct cccggacccc tgagggtcacg 780
tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
ggcgtggagg tgcataatgc caagacaaag ccgcggggagg agcagttcaa cagcacgtac 900
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaagggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccagggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttctctta cagcaggcta accgtggaca agagcagggtg gcaggagggg 1260
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 22

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 22

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

Glu Pro Ala Ser Ile Ser Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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Tyr Trp Ala Ser Thr Arg His Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

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

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

<210> 23

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 23

gatattgtga tgaccagac tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg gatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 24

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 24

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

Glu Pro Ala Ser Ile Ser Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

Tyr Trp Ala Ser Thr Arg His Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

<210> 25
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 25
 gatattgtga tgaccagac tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
 atctcctgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
 gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg gatcccagcc 180
 aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
 gaagattttg cagtttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
 gggaccaagg tggaaatcaa acgtacggtg gctgcacat ctgtcttcat cttcccgcc 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540

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ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 26
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

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

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

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

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

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

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

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

<210> 27
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 27
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgca aggccagtca ggatgtgggt actgctgtag cctgggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

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<210> 28
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 28
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

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<210> 29
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 29
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa acgtacggtg gctgcaccat ctgtcttcat cttcccgcc 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggt gataacgccc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 30
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 31

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 31

gaggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc 60
tcctgcaagg tttctggcta caccttcacc agttactgga tgtactgggt gcgacaggcc 120
actggacaag ggcttgagtg gatgggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag agtcacgatt accgcggaca aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

<210> 32

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 32

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

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

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

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

Lys Asn 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 Asp Tyr Arg Lys Gly Leu Tyr Ala^{SL} Met Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
 210 215 220
 Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
 225 230 235 240
 Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
 245 250 255
 Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
 260 265 270
 Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
 275 280 285
 Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
 290 295 300
 Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
 305 310 315 320
 Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
 325 330 335
 Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
 340 345 350
 Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 355 360 365

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

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

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

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

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

<210> 33
 <211> 1341
 <212> DNA
 <213> Artificial sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 33
 gaggtccagc tggtacagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc 60
 tcctgcaagg tttctggcta caccttcacc agttactgga tgtactgggt gcgacaggcc 120
 actggacaag ggcttgagtg gatgggtagg attgatccta atagtgggag tactaagtac 180
 aatgagaagt tcaagaacag agtcacgatt accgcggaca aatccacgag cacagcctac 240
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aagggactat 300
 agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
 gcttcacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
 agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
 tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
 ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc 600
 tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
 aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctgggggg accatcagtc 720
 ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgaggtcacg 780
 tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
 ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagttcaa cagcacgtac 900
 cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
 tgcaagggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
 gggcagcccc gagagccaca ggtgtacacc ctgccccat cccaggagga gatgaccaag 1080
 aaccaggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140

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tgaggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttcctcta cagcaggcta accgtggaca agagcagggtg gcaggagggg 1260
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 34
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 34
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1 5 10 15

Glu Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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

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

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

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

<210> 35
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 35
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgca aggccagtc ggaatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccagac 180
aggttcagtg gcagtgggtc aggcactgat ttcacactga aaatcagcag ggtggaggct 240

gaggatgttg gagtttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
 gggaccaagg tggaaatcaa a 321

<210> 36
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 36
 Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1 5 10 15

Glu Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
 20 25 30

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

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

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

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

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

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 37
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 37
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctcaaagga gaaagtcacc 60
atcacctgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccacc ggacactgg ggtcccagac 180
aggttcagtg gcagtgggtc aggcactgat ttcacactga aaatcagcag ggtggaggct 240
gaggatgttg gagtttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaatcaa acgtacggtg gctgcaccat ctgtcttcat cttcccgcc 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggt gataacgcc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 38
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 38
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
50 55 60
Lys Asn Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 39
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 39
gaagtgcagc tgggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaggatc 60
tcctgtaagg gttctggcta caccttcacc agttactgga tgtactgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag agtcaccata tcagtagaca cgtccaagaa ccagttctcc 240
ctgaagctga gctctgtgac cgccgcggac acggctgtgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

<210> 40
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 40
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

Leu Lys Leu Ser Ser₈₅ Val Thr Ala Ala^{_SL} Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Asp Tyr₁₀₀ Arg Lys Gly Leu Tyr₁₀₅ Ala Met Asp Tyr Trp₁₁₀ Gly Gln
 Gly Thr Thr₁₁₅ Val Thr Val Ser Ser₁₂₀ Ala Ser Thr Lys Gly₁₂₅ Pro Ser Val
 Phe Pro₁₃₀ Leu Ala Pro Cys Ser₁₃₅ Arg Ser Thr Ser Glu₁₄₀ Ser Thr Ala Ala
 Leu₁₄₅ Gly Cys Leu Val Lys₁₅₀ Asp Tyr Phe Pro Glu₁₅₅ Pro Val Thr Val Ser₁₆₀
 Trp Asn Ser Gly Ala₁₆₅ Leu Thr Ser Gly Val₁₇₀ His Thr Phe Pro Ala₁₇₅ Val
 Leu Gln Ser Ser₁₈₀ Gly Leu Tyr Ser Leu₁₈₅ Ser Ser Val Val Thr₁₉₀ Val Pro
 Ser Ser Ser₁₉₅ Leu Gly Thr Lys Thr₂₀₀ Tyr Thr Cys Asn Val₂₀₅ Asp His Lys
 Pro Ser₂₁₀ Asn Thr Lys Val Asp₂₁₅ Lys Arg Val Glu Ser₂₂₀ Lys Tyr Gly Pro
 Pro₂₂₅ Cys Pro Pro Cys Pro₂₃₀ Ala Pro Glu Phe Leu₂₃₅ Gly Gly Pro Ser Val₂₄₀
 Phe Leu Phe Pro Pro₂₄₅ Lys Pro Lys Asp Thr₂₅₀ Leu Met Ile Ser Arg₂₅₅ Thr
 Pro Glu Val Thr₂₆₀ Cys Val Val Val Asp₂₆₅ Val Ser Gln Glu Asp₂₇₀ Pro Glu
 Val Gln Phe₂₇₅ Asn Trp Tyr Val Asp₂₈₀ Gly Val Glu Val His₂₈₅ Asn Ala Lys
 Thr Lys₂₉₀ Pro Arg Glu Glu Gln₂₉₅ Phe Asn Ser Thr Tyr₃₀₀ Arg Val Val Ser
 Val₃₀₅ Leu Thr Val Leu His₃₁₀ Gln Asp Trp Leu Asn₃₁₅ Gly Lys Glu Tyr Lys₃₂₀
 Cys Lys Val Ser Asn₃₂₅ Lys Gly Leu Pro Ser₃₃₀ Ser Ile Glu Lys Thr₃₃₅ Ile
 Ser Lys Ala Lys₃₄₀ Gly Gln Pro Arg Glu₃₄₅ Pro Gln Val Tyr Thr₃₅₀ Leu Pro

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 355 360 365

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

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

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

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

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

<210> 41
 <211> 1341
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 41
 gaagtgcagc tgggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaggatc 60
 tcctgtaagg gttctggcta caccttcacc agttactgga tgtactgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggtagg attgatccta atagtgggag tactaagtac 180
 aatgagaagt tcaagaacag agtcaccata tcagtagaca cgtccaagaa ccagttctcc 240
 ctgaagctga gctctgtgac cgccgcggac acggctgtgt attactgtgc aaggggactat 300
 agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
 gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
 agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
 tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
 ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg cacgaagacc 600
 tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
 aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctgggggg accatcagtc 720
 ttcctgttcc cccaaaacc caaggacact ctcatgatct cccggacccc tgagggtcacg 780
 tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
 ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagttcaa cagcacgtac 900
 cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
 tgcaaggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020

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gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccaggtca gcttgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttcctcta cagcaggcta accgtggaca agagcaggtg gcaggagggg 1260
aatgtcttct catgtccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 42

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 42

Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1 5 10 15

Glu Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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

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

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

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

<210> 43

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 43

gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60

atcacctgca aggccagtc ggaatgtgggt actgctgtag cctgggtacct gcagaagcca 120

_SL

gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcagcag tataacagct atcctctcac gttcggccaa	300
gggaccaagg tggaaatcaa a	321

<210> 44
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 44
 Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1 5 10 15

Glu Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
 20 25 30

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

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

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

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

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

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 ^{_SL} 205

Phe Asn Arg Gly Glu Cys
210

<210> 45
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 45
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat ttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa acgtacgggtg gctgcaccat ctgtcttcat cttcccgcga 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 46
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 46
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 47
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 47
gaggtccagc tggtagcagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc 60
tcctgcaagg tttctggcta caccttcacc agttactgga tgtactggat caggcagtcc 120
ccatcgagag gccttgagtg gctgggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag actcaccatc tccaaggaca cctccaaaaa ccagggtggtc 240
cttacaatga ccaacatgga ccctgtggac acagccacgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

<210> 48
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 48
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

<210> 49
 <211> 1341
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 49
 gaggtccagc tggtacagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc 60
 tcctgcaagg tttctggcta caccttcacc agttactgga tgtactggat caggcagtcc 120
 ccatcgagag gccttgagtg gctgggtagg attgatccta atagtgggag tactaagtac 180
 aatgagaagt tcaagaacag actcaccatc tccaaggaca cctccaaaaa ccagggtggtc 240
 cttacaatga ccaacatgga ccctgtggac acagccacgt attactgtgc aagggactat 300
 agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
 gcttcacca agggcccac cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
 agcacagccg ccctgggctg cctggtcaag gactacttcc ccgaaccggt gacggtgtcg 480
 tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
 ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg cacgaagacc 600
 tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
 aatatggtc ccccatgccc accgtgcccga gcacctgagt tcctggggggg accatcagtc 720
 ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgagggtcacg 780
 tgcgtggtgg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
 ggcgtggagg tgcataatgc caagacaaag ccgcggggagg agcagttcaa cagcacgtac 900

_SL

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaaggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccaggtca gcctgacctg cctggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttcctcta cagcaggcta accgtggaca agagcaggtg gcaggagggg 1260
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 50

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 50

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

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 51

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 51
gaagtgcagc tggatgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaggatc 60
tcctgtaagg gttctggcta caccttcacc agttactgga tgtactggat ccgccagccc 120
ccagggaagg ggctggagtg gattggtagg attgaccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag agtcacgatt accgcggaca aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

<210> 52
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 52
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

Trp Asn Ser Gly Ala₁₆₅ Leu Thr Ser Gly Val₁₇₀^{SL} His Thr Phe Pro Ala₁₇₅ Val
 Leu Gln Ser Ser₁₈₀ Gly Leu Tyr Ser Leu₁₈₅ Ser Ser Val Val Thr₁₉₀ Val Pro
 Ser Ser Ser₁₉₅ Leu Gly Thr Lys Thr₂₀₀ Tyr Thr Cys Asn Val₂₀₅ Asp His Lys
 Pro Ser₂₁₀ Asn Thr Lys Val Asp₂₁₅ Lys Arg Val Glu Ser₂₂₀ Lys Tyr Gly Pro
 Pro₂₂₅ Cys Pro Pro Cys Pro₂₃₀ Ala Pro Glu Phe Leu₂₃₅ Gly Gly Pro Ser Val₂₄₀
 Phe Leu Phe Pro Pro₂₄₅ Lys Pro Lys Asp Thr₂₅₀ Leu Met Ile Ser Arg₂₅₅ Thr
 Pro Glu Val Thr₂₆₀ Cys Val Val Val Asp₂₆₅ Val Ser Gln Glu Asp₂₇₀ Pro Glu
 Val Gln Phe₂₇₅ Asn Trp Tyr Val Asp₂₈₀ Gly Val Glu Val His₂₈₅ Asn Ala Lys
 Thr Lys₂₉₀ Pro Arg Glu Glu Gln₂₉₅ Phe Asn Ser Thr Tyr₃₀₀ Arg Val Val Ser
 Val₃₀₅ Leu Thr Val Leu His₃₁₀ Gln Asp Trp Leu Asn₃₁₅ Gly Lys Glu Tyr Lys₃₂₀
 Cys Lys Val Ser Asn₃₂₅ Lys Gly Leu Pro Ser₃₃₀ Ser Ile Glu Lys Thr₃₃₅ Ile
 Ser Lys Ala Lys₃₄₀ Gly Gln Pro Arg Glu₃₄₅ Pro Gln Val Tyr Thr₃₅₀ Leu Pro
 Pro Ser Gln₃₅₅ Glu Glu Met Thr Lys₃₆₀ Asn Gln Val Ser Leu₃₆₅ Thr Cys Leu
 Val Lys₃₇₀ Gly Phe Tyr Pro Ser₃₇₅ Asp Ile Ala Val Glu₃₈₀ Trp Glu Ser Asn
 Gly₃₈₅ Gln Pro Glu Asn Asn₃₉₀ Tyr Lys Thr Thr Pro₃₉₅ Pro Val Leu Asp Ser₄₀₀
 Asp Gly Ser Phe Phe₄₀₅ Leu Tyr Ser Arg Leu₄₁₀ Thr Val Asp Lys Ser Arg₄₁₅
 Trp Gln Glu Gly₄₂₀ Asn Val Phe Ser Cys₄₂₅ Ser Val Met His Glu₄₃₀ Ala Leu

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

<210> 53
<211> 1341
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 53
gaagtgcagc tggtagcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaggatc 60
tcctgtaagg gttctggcta caccttcacc agttactgga tgtactggat ccgccagccc 120
ccagggaagg ggctggagtg gattggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag agtcacgatt accgcggaca aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
gcttcacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc 600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctgggggg accatcagtc 720
ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgagggtcacg 780
tgcgtggtgg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagttcaa cagcacgtac 900
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaaggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccaggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttcctcta cagcaggcta accgtggaca agagcaggtg gcaggagggg 1260
aatgtcttct catgtctcgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 54
<211> 120
<212> PRT
<213> Artificial Sequence

<220>

_SL

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 54

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

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

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 55

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 55

caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggcta caccttcacc agttactgga tgtactggat caggcagtcc 120

ccatcgagag gccttgagtg gctgggtagg attgatccta atagtgggag tactaagtac 180

aatgagaagt tcaagaacag attcaccatc tccagagatg attcaaagaa cacggcgtat 240

ctgcaaata acagcctgaa aaccgaggac acggccgtgt attactgtgc aagggaactat 300

agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

<210> 56

<211> 447

<212> PRT

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial^{_SL} Sequence: Synthetic polypeptide"

<400> 56

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

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

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

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

<210> 57
 <211> 1341
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 57
 caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggcta caccttcacc agttactgga tgtactggat caggcagtcc 120
 ccatcgagag gccttgagtg gctgggtagg attgatccta atagtgggag tactaagtac 180
 aatgagaagt tcaagaacag attcaccatc tccagagatg attcaaagaa cacggcgtat 240
 ctgcaaataa acagcctgaa aaccgaggac acggccgtgt attactgtgc aagggaactat 300

_SL

agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc 600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctggggggg accatcagtc 720
ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgagggtcacg 780
tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagttcaa cagcacgtac 900
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaaggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccaggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttcctcta cagcaggcta accgtggaca agagcaggtg gcaggagggg 1260
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 58

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 58

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

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

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

Tyr Trp Ala Ser Thr Arg His Thr Gly Ile Pro Pro Arg Phe Ser Gly
50 55 60

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

_SL

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

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

<210> 59
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 59
gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg gatccacact 180
cgattcagtg gcagcgggta tggaacagat tttaccctca caattaataa catagaatct 240
gaggatgctg catattactt ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 60
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 60
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

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

Tyr Trp Ala Ser Thr Arg His Thr Gly Ile Pro Pro Arg Phe Ser Gly
50 55 60

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

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

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile^{SL} Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

<210> 61
 <211> 642
 <212> DNA
 <213> Artificial sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 61
 gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
 gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg gatcccacct 180
 cgattcagtg gcagcgggta tggaacagat tttaccctca caattaataa catagaatct 240
 gaggatgctg catattactt ctgtcagcag tataacagct atcctctcac gttcggccaa 300
 gggaccaagg tggaaatcaa acgtacggtg gctgcaccat ctgtcttcat cttcccgcc 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggt gataacgcc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 62
 <211> 120

_SL

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 62

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

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 63

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 63

gaagtgcagc tggatgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaggatc	60
tcctgtaagg gttctggcta caccttcacc agttactgga tgtactgggt ggcacaggct	120
cgtggacaac gccttgagtg gataggtagg attgatccta atagtgggag tactaagtac	180
aatgagaagt tcaagaacag actcaccatc tccaaggaca cctccaaaaa ccaggtggtc	240
cttacaatga ccaacatgga ccctgtggac acagccacgt attactgtgc aagggactat	300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc	360

<210> 64

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 64

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

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

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

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
 130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
 195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
 210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
 225 230 235 240

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

<210>	65
<211>	1341
<212>	DNA
<213>	Artificial Sequence

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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      polynucleotide"
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<400> 65
gaagtgcagc tggtagcagc tggagcagag gtgaaaaagc ccggggagtc tctgaggatc      60
tcctgtaagg gttctggcta caccttcacc agttactgga tgtactgggt gcgacaggct      120
cgtggacaac gccttgagtg gataggtagg attgatacta atagtgggag tactaagtac      180

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_SL

aatgagaagt tcaagaacag actcaccatc tccaaggaca cctccaaaaa ccagggtggtc 240
cttacaatga ccaacatgga ccctgtggac acagccacgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcggtg cacaccttcc cggctgtcct acagtcctca 540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc 600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
aaatatgggtc ccccatgccc accgtgcccga gcacctgagt tcctggggggg accatcagtc 720
ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgagggtcacg 780
tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
ggcgtggagg tgcataatgc caagacaaaag ccgcgggagg agcagttcaa cagcacgtac 900
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaaggtgt ccaacaaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccagggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttctctta cagcaggcta accgtggaca agagcagggtg gcaggagggg 1260
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 66

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 66

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

Gln Pro Ala Ser Ile Ser Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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

_SL

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

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

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

<210> 67
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 67
gatgttgatga tgactcagtc tccactctcc ctgcccgtca cccttgagaca gccggcctcc 60
atctcctgca aggccagtc ggatgtgggt actgctgtag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctattgg gcatccaccc ggcacactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 68
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 68
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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

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

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

<210> 69
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 69
 gatgttgatga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
 atctcctgca aggccagtc ggaatgtgggt actgctgtag cctgggtacca gcagaaacct 120
 ggccaggctc ccaggctcct catctattgg gcatccacc gccacactgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
 gatgattttg caacttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
 gggaccaagg tggaatatcaa acgtacggtg gctgcacat ctgtcttcat cttcccgcga 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggt gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

_SL

<210> 70
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 70
Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
1 5 10 15

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 71
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 71
cagatcacct tgaaggagtc tggctcctacg ctggtgaaac ccacacagac cctcacgctg 60
acctgcacct tctctggcta caccttcacc agttactgga tgtactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtcagtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag agtcacgatt accgcggaca aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aagggactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360

_SL

<210> 72
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 72
Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
1 5 10 15

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

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

<210> 73

<211> 1341

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 73

cagatcacct tgaaggagtc tggctctacg ctggtgaaac ccacacagac cctcacgctg

60

_SL

acctgcacct tctctggcta caccttcacc agttactgga tgtactgggt cccccaggct 120
ccagggaagg ggctggagtg ggtcagtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag agtcacgatt accgcggaca aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aagggaactat 300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc 360
gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg 480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc 600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 660
aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctgggggg accatcagtc 720
ttcctgttcc ccccaaaacc caaggacact ctcagtatct cccggacccc tgagggtcacg 780
tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 840
ggcgtggagg tgcataatgc caagacaaag ccgcggggagg agcagttcaa cagcacgtac 900
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 960
tgcaagggtg ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 1080
aaccagggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag 1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 1200
gacggctcct tcttctctta cagcaggcta accgtggaca agagcagggtg gcaggagggg 1260
aatgtcttct catgctccgt gatgcatgag gctctgcaca accactacac acagaagagc 1320
ctctccctgt ctctgggtaa a 1341

<210> 74

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 74

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

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

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

_SL

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

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

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

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

<210> 75

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 75

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgca aggccagtca ggatgtgggt actgctgtag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctattgg gcatccaccc ggcacactgg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 76

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 76

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

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

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

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

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

<210> 77
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 77
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgca aggccagtc ggaatgtgggt actgctgtag cctggtacca gcagaaacct 120
 ggccaggctc ccaggctcct catctattgg gcatccaccc ggcacactgg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
 gaagatattg caacatatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
 gggaccaagg tggaaatcaa acgtacgggt gctgcacat ctgtcttcat cttcccgcc 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggt gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540

_SL

ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 78
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 78
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 79
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 79
gaggtccagc tggtacagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc 60
tcctgcaagg tttctggcta caccttcacc agttactgga tgtactgggt gcgacaggct 120
cgtggacaac gccttgagtg gataggtagg attgatccta atagtgggag tactaagtac 180
aatgagaagt tcaagaacag attcaccatc tccagagaca attccaagaa cacgctgtat 240

cttcaaataa acagcctgag agccgaggac acggccgtgt attactgtgc aagggactat 300
 agaaaggggc tctatgctat ggactactgg ggccaggga ccaccgtgac cgtgtcctcc 360

<210> 80
 <211> 446
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 80
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
 130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
 195 200 205

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

<210> 81

<211> 1341

<212> DNA

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial sequence: Synthetic

polynucleotide" _SL

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<400> 81
gaggtccagc tggtacagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc      60
tcctgcaagg tttctggcta caccttcacc agttactgga tgtactgggt gcgacaggct      120
cgtggacaac gccttgagtg gataggtagg attgatccta atagtgggag tactaagtac      180
aatgagaagt tcaagaacag attcaccatc tccagagaca attccaagaa cacgctgtat      240
cttcaaatga acagcctgag agccgaggac acggccgtgt attactgtgc aagggaactat      300
agaaaggggc tctatgctat ggactactgg ggccagggca ccaccgtgac cgtgtcctcc      360
gcttccacca agggcccac cgtcttcccc ctggcgccct gctccaggag cacctccgag      420
agcacagccg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg      480
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca      540
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg cacgaagacc      600
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc      660
aaatatggtc ccccatgccc accgtgcccga gcacctgagt tcctggggggg accatcagtc      720
ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgagggtcacg      780
tgcgtgggtg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat      840
ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagttcaa cagcacgtac      900
cgtgtgggtc gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag      960
tgcaaggtgt ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa     1020
gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag     1080
aaccaggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag     1140
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc     1200
gacggctcct tcttcctcta cagcaggcta accgtggaca agagcagggtg gcaggagggg     1260
aatgtcttct catgtctcgt gatgcatgag gctctgcaca accactacac acagaagagc     1320
ctctccctgt ctctgggtaa a                                             1341

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<210> 82
<211> 107
<212> PRT
<213> Artificial Sequence

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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      polypeptide"

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<400> 82
Ala 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 Lys Ala Ser Gln Asp Val Gly Thr Ala
           20           25           30

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

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

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

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

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

<210> 83
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 83
gccatccagt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgca aggccagtca ggatgtgggt actgctgtag cctggtacct gcagaagcca 120
gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccttta ccatcagtag cctggaagct 240
gaagatgctg caacatatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaatcaa a 321

<210> 84
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 84
Ala 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 Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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

<210> 85

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 85

gccatccagt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgca aggccagtc g gatgtgggt actgctgtag cctggtacct gcagaagcca 120

gggcagtctc cacagctcct gatctattgg gcatccaccc ggcacactgg ggtcccctcg 180

aggttcagtg gcagtggatc tgggacagat ttcaccttta ccatcagtag cctggaagct 240

gaagatgctg caacatatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300

gggaccaagg tggaatcaa acgtacggtg gctgcacat ctgtcttcat cttcccgcc 360

tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420

_SL

cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 86
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 86
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1 5 10 15

Glu Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

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

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

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

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

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

<210> 87
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 87
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctcaaagga gaaagtcacc 60
atcacctgca aggccagtc ggaatgtgggt actgctgtag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctattgg gcatccaccc ggcacactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
 gggaccaagg tggaaatcaa a 321

<210> 88
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 88
 Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1 5 10 15
 Glu Lys Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
 20 25 30
 Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 89
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 89
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgca aggccagtca ggatgtgggt actgctgtag cctgggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctattgg gcatccacc ggacactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgtcagcag tataacagct atcctctcac gttcggccaa 300
gggaccaagg tggaaatcaa acgtacgggt gctgcaccat ctgtcttcat cttcccgcc 360
tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggt gataacgcc tccaatcggg taactcccag 480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 90
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 90
gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgagaatt 60
agctgtaaag gttcaggcta caccttact agctactgga tgtactgggt ccgacaggcc 120
ccagggcaag gcctggagtg gatgggtaga atcgacccta atagcggctc tactaagtat 180
aacgagaagt ttaagaatag agtgactatt agcgtggaca cctctaagaa tcagtttagc 240
ctgaagctgt ctagcgtgac cgccgctgac accgccgtct actactgcgc tagagactat 300
agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca 360

<210> 91
<211> 446
<212> PRT
<213> Artificial Sequence

<220>

_SL

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 91

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

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

_SL

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

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

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

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

Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
325 330 335

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

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

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

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

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

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

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

<210> 92

<211> 1338

<212> DNA

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 92

gaagtgcagc tggtgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgagaatt 60

agctgtaaag gttcaggcta caccttact agctactgga tgtactgggt ccgacaggcc 120

ccagggcaag gcctggagtg gatgggtaga atcgacccta atagcggctc tactaagtat 180

aacgagaagt ttaagaatag agtgactatt agcgtggaca cctctaagaa tcagtttagc 240

ctgaagctgt	ctagcgtgac	cgccgctgac	accgcccgtct	actactgcgc	tagagactat	300
agaaagggcc	tgtacgctat	ggactactgg	ggtcaaggca	ctaccgtgac	cgtgtcttca	360
gctagcacta	agggcccgtc	cgtgttcccc	ctggcacctt	gtagccggag	cactagcgaa	420
tccaccgctg	ccctcggctg	cctgggtcaag	gattacttcc	cggagcccgt	gaccgtgtcc	480
tggaacagcg	gagccctgac	ctccggagtg	cacaccttcc	ccgctgtgct	gcagagctcc	540
gggctgtact	cgctgtcgtc	ggtgggtcacg	gtgccttcat	ctagcctggg	taccaagacc	600
tacacttgca	acgtggacca	caagccttcc	aacactaagg	tggacaagcg	cgtcgaatcg	660
aagtacggcc	caccgtgccc	gccttgtccc	gcgccggagt	tcctcggcgg	tccctcggtc	720
tttctgttcc	caccgaagcc	caaggacact	ttgatgattt	cccgcacccc	tgaagtgaca	780
tgcgtggtcg	tggacgtgtc	acaggaagat	ccggagggtgc	agttcaattg	gtacgtggat	840
ggcgtcgagg	tgcacaacgc	caaaaccaag	ccgagggagg	agcagttcaa	ctccacttac	900
cgcgtcgtgt	ccgtgctgac	ggtgctgcat	caggactggc	tgaacgggaa	ggagtacaag	960
tgcaaagtgt	ccaacaaggg	acttcctagc	tcaatcgaaa	agaccatctc	gaaagccaag	1020
ggacagcccc	gggaacccca	agtgtatacc	ctgccaccga	gccaggaaga	aatgactaag	1080
aaccaagtct	cattgacttg	ccttgtgaag	ggcttctacc	catcggatat	cgccgtggaa	1140
tgggagtcca	acggccagcc	ggaaaacaac	tacaagacca	cccctccggt	gctggactca	1200
gacggatcct	tcttctctta	ctcgcggctg	accgtggata	agagcagatg	gcaggaggga	1260
aatgtgttca	gctgttctgt	gatgcatgaa	gccctgcaca	accactacac	tcagaagtcc	1320
ctgtccctct	ccctggga					1338

<210> 93
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 93	
gagatcgtcc	tgactcagtc
atcacctgta	aagcctctca
ggatcaatcac	ctcagctgct
aggtttagcg	gtagcggtag
gaggatatcg	ctacctaata
ggcactaagg	tcgagattaa
	g

<210> 94
 <211> 642
 <212> DNA
 <213> Artificial Sequence

_SL

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 94
gagatcgtcc tgactcagtc acccgacttt cagtcagtga cccctaaaga gaaagtcact 60
atcacctgta aagcctctca ggacgtgggc accgccgtgg cctggatatct gcagaagcct 120
ggatcaatcac ctacagctgct gatctactgg gcctctacta gacacaccgg cgtgccctct 180
aggttttagcg gtagcggtag tggcaccgac ttcaccttca ctatctcttc actgcagccc 240
gaggatatcg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa 300
ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc 360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac 420
ccccgggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag 480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc 600
ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gc 642

<210> 95
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 95
gaagtgcagc tggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt 60
agctgtaaag tctcaggcta caccttcact agctactgga tgtactgggt ccgacaggct 120
accggtcaag gcctggagtg gatgggtaga atcgacccta atagcggctc tactaagtat 180
aacgagaagt ttaagaatag agtgactatc accgccgata agtctactag caccgcctat 240
atggaactgt ctacgctgag atcagaggac accgccgtct actactgcgc tagagactat 300
agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca 360

<210> 96
<211> 446
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 96
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 ^{-SL} 30
 Trp Met Tyr Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
 50 55 60
 Lys Asn 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 Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
 100 105 110
 Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 115 120 125
 Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
 130 135 140
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190
 Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
 195 200 205
 Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
 210 215 220
 Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
 225 230 235 240
 Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
 245 250 255
 Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
 260 265 270
 Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
 275 280 285

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

<210> 97
 <211> 1338
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 97
 gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt 60
 agctgtaaag tctcaggcta caccttcact agctactgga tgtactgggt ccgacaggct 120
 accggtcaag gcctggagtg gatgggtaga atcgacccta atagcggctc tactaagtat 180
 aacgagaagt ttaagaatag agtgactatc accgccgata agtctactag caccgcctat 240
 atggaactgt ctagcctgag atcagaggac accgccgtct actactgcgc tagagactat 300
 agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca 360
 gctagcacta agggcccgtc cgtgttcccc ctggcacctt gtagccggag cactagcgaa 420
 tccaccgtg ccctcggctg cctgggtcaag gattacttcc cggagcccgt gaccgtgtcc 480
 tggaacagcg gagccctgac ctccggagtg cacaccttcc ccgctgtgct gcagagctcc 540

_SL

gggctgtact cgctgtcgtc ggtgggtcacg gtgccttcat ctagcctggg taccaagacc 600
tacacttgca acgtggacca caagccttcc aacactaagg tggacaagcg cgtcgaatcg 660
aagtacggcc caccgtgccc gccttgtccc gcgccggagt tcctcggcgg tccctcggtc 720
tttctgttcc caccgaagcc caaggacact ttgatgattt cccgcacccc tgaagtgaca 780
tgcgtggctg tggacgtgtc acaggaagat ccggagggtgc agttcaattg gtacgtggat 840
ggcgtcgagg tgcacaacgc caaaaccaag ccgagggagg agcagttcaa ctccacttac 900
cgcgtcgtgt ccgtgctgac ggtgctgcat caggactggc tgaacgggaa ggagtacaag 960
tgcaaagtgt ccaacaaggg acttcctagc tcaatcgaaa agaccatctc gaaagccaag 1020
ggacagcccc gggaacccca agtgatatcc ctgccaccga gccaggaaga aatgactaag 1080
aaccaagtct cattgacttg ccttgtgaag ggcttctacc catcgatat cgccgtggaa 1140
tgggagtcca acggccagcc ggaaaacaac tacaagacca cccctccggt gctggactca 1200
gacggatcct tcttcctcta ctcgcggctg accgtggata agagcagatg gcaggaggga 1260
aatgtgttca gctgttctgt gatgcatgaa gccctgcaca accactacac tcagaagtcc 1320
ctgtccctct ccctggga 1338

<210> 98
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 98
gacgtcgtga tgactcagtc acccctgagc ctgcccgtga ccctggggca gcccgcctct 60
attagctgta aagcctctca ggacgtgggc accgccgtgg cctgggtatca gcagaagcca 120
gggcaagccc ctagactgct gatctactgg gcctctacta gacacaccgg cgtgccctct 180
aggttttagcg gtagcggtag tggcaccgag ttcaccctga ctatctcttc actgcagccc 240
gacgacttcg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa 300
ggcactaagg tcgagattaa g 321

<210> 99
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 99
gacgtcgtga tgactcagtc acccctgagc ctgcccgtga ccctggggca gcccgcctct 60
attagctgta aagcctctca ggacgtgggc accgccgtgg cctgggtatca gcagaagcca 120

_SL

gggcaagccc ctagactgct gatctactgg gcctctacta gacacaccgg cgtgccctct	180
aggttttagcg gtagcggtag tggcaccgag ttcaccctga ctatctcttc actgcagccc	240
gacgacttcg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa	300
ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc	360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac	420
ccccgggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag	480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc	540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc	600
ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gc	642

<210> 100
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 100	
gaagtgcagc tggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt	60
agctgtaaag tctcaggcta caccttact agctactgga tgtactgggt ccgacaggct	120
agagggcaaa gactggagtg gatcggtaga atcgacccta atagcggctc tactaagtat	180
aacgagaagt ttaagaatag gttcactatt agtagggata actctaagaa caccctgtac	240
ctgcagatga atagcctgag agccgaggac accgccgtct actactgcgc tagagactat	300
agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca	360

<210> 101
<211> 1338
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 101	
gaagtgcagc tggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt	60
agctgtaaag tctcaggcta caccttact agctactgga tgtactgggt ccgacaggct	120
agagggcaaa gactggagtg gatcggtaga atcgacccta atagcggctc tactaagtat	180
aacgagaagt ttaagaatag gttcactatt agtagggata actctaagaa caccctgtac	240
ctgcagatga atagcctgag agccgaggac accgccgtct actactgcgc tagagactat	300
agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca	360
gctagcacta agggcccgtc cgtgttcccc ctggcacctt gtagccggag cactagcgaa	420

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tccaccgctg ccctcggctg cctgggtcaag gattacttcc cggagcccgt gaccgtgtcc	480
tggaacagcg gagccctgac ctccggagtg cacaccttcc ccgctgtgct gcagagctcc	540
gggctgtact cgctgtcgtc ggtgggtcacg gtgccttcat ctagcctggg taccaagacc	600
tacacttgca acgtggacca caagccttcc aacactaagg tggacaagcg cgtcgaatcg	660
aagtacggcc caccgtgccc gccttgtccc gcgccggagt tcctcggcgg tccctcggtc	720
tttctgttcc caccgaagcc caaggacact ttgatgattt cccgcacccc tgaagtgaca	780
tgctgtggtcg tggacgtgtc acaggaagat ccggaggtgc agttcaattg gtacgtggat	840
ggcgtcgagg tgcacaacgc caaaaccaag ccgagggagg agcagttcaa ctccacttac	900
cgctgtcgtg ccgtgctgac ggtgctgcat caggactggc tgaacgggaa ggagtacaag	960
tgcaaagtgt ccaacaaggg acttcctagc tcaatcgaag agaccatctc gaaagccaag	1020
ggacagcccc gggaacccca agtgatatacc ctgccaccga gccaggaaga aatgactaag	1080
aaccaagtct cattgacttg ccttgtgaag ggcttctacc catcgatat cgccgtggaa	1140
tgggagtcca acggccagcc ggaaaacaac tacaagacca cccctccggt gctggactca	1200
gacggatcct tcttctctta ctgcggctg accgtggata agagcagatg gcaggaggga	1260
aatgtgttca gctgttctgt gatgcatgaa gccctgcaca accactacac tcagaagtcc	1320
ctgtccctct ccctggga	1338

<210> 102
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 102	
gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact	60
atcacctgta aagcctctca ggacgtgggc accgccgtgg cctggatatct gcagaagcct	120
ggtcaatcac ctgagctgct gatctactgg gccttacta gacacaccgg cgtgccctct	180
aggttttagc gtagcggtag tggcaccgac ttcaccttca ctatctcttc actggaagcc	240
gaggacgcc ctacctacta ctgtcagcag tataatagct acccctgac cttcgggtcaa	300
ggcactaagg tcgagattaa g	321

<210> 103
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

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<400> 103
gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcca tagagtgact 60
atcacctgta aagcctctca ggacgtgggc accgccgtgg cctggtatct gcagaagcct 120
ggatcaatcac ctgagctgct gatctactgg gcctctacta gacacaccgg cgtgccctct 180
aggttttagcg gtagcggtag tggcaccgac ttcaccttca ctatctcttc actggaagcc 240
gaggacgccg ctacctacta ctgtcagcag tataatagct acccctgac cttcggtcaa 300
ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc 360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac 420
ccccgggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag 480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc 600
ctgtccagcc ccgtgaccaa gagcttcaac aggggagcgt gc 642

<210> 104
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 104
agttactgga tgtac 15

<210> 105
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 105
aggattgatc ctaatagtgaggagtactaag tacaatgaga agttcaagaa c 51

<210> 106
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 106
gactatagaa aggggctcta tgctatggac tac 33

<210> 107
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 107
ggctacacct tcaccagtta c 21

<210> 108
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 108
gatacctaata gtgggagt 18

<210> 109
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 109
cagcagtata acagctatcc tctcacg 27

<210> 110
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 110
agtcaggatg tgggtactgc t 21

<210> 111
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 111
tgggcatcc 9

<210> 112
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 112
tataacagct atcctctc 18

<210> 113
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 113
agctactgga tgtac 15

<210> 114
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 114
agaatcgacc ctaatagcgg ctctactaag tataacgaga agtttaagaa t 51

<210> 115
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 115
gactatagaa agggcctgta cgctatggac tac 33

<210> 116
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 116
ggctacacct tcactagcta c 21

<210> 117
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 117
gaccctaata gcggctct 18

<210> 118
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 118
aaagcctctc aggacgtggg caccgccgtg gcc 33

<210> 119
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 119
tgggcctcta ctagacacac c 21

<210> 120
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 120
cagcagtata atagctaccc cctgacc 27

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 121
tctcaggacg tgggcaccgc c 21

<210> 122
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 122
tgggcctct 9

<210> 123
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 123
tataatagct accccctg 18

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 124
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
20 25

<210> 125
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 125
caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttct 75

<210> 126

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 126
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser
20 25

<210> 127
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 127
gaagtgcagc tggatgcagtc tggagcagag gtgaaaagc ccggggagtc tctgaggatc 60
tcctgtaagg gttct 75

<210> 128
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 128
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser
20 25

<210> 129
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 129
gaggtccagc tggatgcagtc tggggctgag gtgaagaagc ctggggctac agtgaaaatc 60
tcctgcaagg tttct 75

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<210> 130
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 130
Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser
20 25

<210> 131
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 131
cagatcacct tgaaggagtc tggctcctacg ctggtgaaac ccacacagac cctcacgctg 60
acctgcacct tctct 75

<210> 132
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 132
Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met Gly
1 5 10

<210> 133
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 133
tgggtgcgac aggccactgg acaagggctt gagtggatgg gt 42

<210> 134
<211> 14
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 134

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

<210> 135

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 135

tgggtgcgac aggcccttg acaagggtt gagtggatgg gt

42

<210> 136

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 136

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

<210> 137

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 137

tggatccgcc agccccagg gaaggggctg gagtggattg gt

42

<210> 138

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 138

Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu Trp Leu Gly
1 5 10

<210> 139
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 139
tggatcaggc agtcccatc gagaggcctt gagggtgg gt

42

<210> 140
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 140
Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile Gly
1 5 10

<210> 141
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 141
tgggtgacgac aggctcgtgg acaacgcctt gagggtatag gt

42

<210> 142
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 142
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
1 5 10

<210> 143
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Page 79

oligonucleotide" _SL

<400> 143
tgggtccgcc aggctccagg gaaggggctg gagtgggtca gt 42

<210> 144
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 144
Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Ala Tyr Leu Gln
1 5 10 15

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

<210> 145
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 145
agattcacca tctccagaga tgattcaaag aacacggcgt atctgcaaat gaacagcctg 60
aaaaccgagg acacggccgt gtattactgt gcaagg 96

<210> 146
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 146
Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr Met Glu
1 5 10 15

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

<210> 147
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Page 80

oligonucleotide"

<400> 147
agagtcacga ttaccgcgga caaatccacg agcacagcct acatggagct gagcagcctg 60
agatctgagg acacggccgt gtattactgt gcaagg 96

<210> 148
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 148
Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Lys
1 5 10 15

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

<210> 149
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 149
agagtcacca tatcagtaga cacgtccaag aaccagttct ccctgaagct gagctctgtg 60
accgccgcgg acacggctgt gtattactgt gcaagg 96

<210> 150
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 150
Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Val Leu Thr
1 5 10 15

Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys Ala Arg
20 25 30

<210> 151
<211> 96
<212> DNA
<213> Artificial Sequence

<220>

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<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 151
agactcacca tctccaagga cacctccaaa aaccaggtgg tccttacaat gaccaacatg 60
gaccctgtgg acacagccac gtattactgt gcaagg 96

<210> 152
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 152
Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

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

<210> 153
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 153
agattcacca tctccagaga caattccaag aacacgctgt atcttcaaatt gaacagcctg 60
agagccgagg acacggccgt gtattactgt gcaagg 96

<210> 154
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 154
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
1 5 10

<210> 155
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

oligonucleotide"

<400> 155
tggggccagg gcaccaccgt gaccgtgtcc tcc

33

<210> 156
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 156
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1 5 10 15

Glu Lys Val Thr Ile Thr Cys
20

<210> 157
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 157
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctcaaagga gaaagtcacc
atcacctgc

60

69

<210> 158
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 158
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys
20

<210> 159
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

oligonucleotide"

<400> 159
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttgga ggcggcctcc 60
atctcctgc 69

<210> 160
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 160
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys
20

<210> 161
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 161
gatattgtga tgaccagac tccactctcc ctgcccgtca ccctggaga ggcggcctcc 60
atctcctgc 69

<210> 162
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 162
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys
20

<210> 163
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

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<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 163
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgc 69

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 164
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys
20

<210> 165
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 165
gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgc 69

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 166
Ala 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
20

<210> 167
<211> 69
<212> DNA
<213> Artificial Sequence

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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 167
gccatccagt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgc 69

<210> 168
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 168
Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 169
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 169
tggtaccagc agaaacctgg ccaggctccc aggctcctca tctat 45

<210> 170
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 170
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr
1 5 10 15

<210> 171
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 171
tggtacctgc agaagccagg gcagtctcca cagctcctga tctat 45

_SL

<210> 172
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 172
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15

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

<210> 173
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 173
ggggtcccat caaggttcag cggcagtgga tctgggacag aattcactct caccatcagc 60
agcctgcagc ctgatgattt tgcaacttat tactgt 96

<210> 174
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 174
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

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

<210> 175
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 175
ggggtcccat caaggttcag tggaagtgga tctgggacag attttacttt caccatcagc 60

agcctgcagc ctgaagatat tgcaacatat tactgt

96

<210> 176
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 176
Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15

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

<210> 177
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 177
gggatcccag ccaggttcag tggcagtggg tctgggacag agttcactct caccatcagc
agcctgcagt ctgaagattt tgcagtttat tactgt

60

96

<210> 178
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 178
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

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

<210> 179
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

_SL

<400> 179
ggggtcccat caaggttcag cggcagtgga tctgggacag atttcactct caccatcagc 60
agcctgcagc ctgaagattt tgcaacttat tactgt 96

<210> 180
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 180
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
20 25 30

<210> 181
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 181
ggggtcccag acaggttcag tggcagtggg tcaggcactg atttcacact gaaaatcagc 60
agggtggagg ctgaggatgt tggagtttat tactgt 96

<210> 182
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 182
Gly Ile Pro Pro Arg Phe Ser Gly Ser Gly Tyr Gly Thr Asp Phe Thr
1 5 10 15
Leu Thr Ile Asn Asn Ile Glu Ser Glu Asp Ala Ala Tyr Tyr Phe Cys
20 25 30

<210> 183
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

oligonucleotide"

<400> 183
gggatccac ctcgattcag tggcagcggg tatggaacag atttaccct cacaattaat 60
aacatagaat ctgaggatgc tgcattattac ttctgt 96

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 184
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

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

<210> 185
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 185
gggggtcccct cgaggttcag tggcagtgga tctgggacag atttcacctt taccatcagt 60
agcctggaag ctgaagatgc tgcaacatat tactgt 96

<210> 186
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 186
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 187
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 187
ttcggccaag ggaccaaggt ggaaatcaaa

<210> 188
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 188
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15
Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80
Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95
Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110
Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
130 135 140
Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145 150 155 160
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
165 170 175
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
180 185 190
Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
195 200 205
Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
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	210						215				-SL	220					
Glu 225	Pro	Gln	Val	Tyr	Thr 230	Leu	Pro	Pro	Ser	Gln 235	Glu	Glu	Met	Thr	Lys 240		
Asn	Gln	Val	Ser	Leu 245	Thr	Cys	Leu	Val	Lys 250	Gly	Phe	Tyr	Pro	Ser 255	Asp		
Ile	Ala	Val	Glu 260	Trp	Glu	Ser	Asn	Gly 265	Gln	Pro	Glu	Asn	Asn 270	Tyr	Lys		
Thr	Thr	Pro 275	Pro	Val	Leu	Asp	Ser 280	Asp	Gly	Ser	Phe	Phe 285	Leu	Tyr	Ser		
Arg	Leu 290	Thr	Val	Asp	Lys	Ser 295	Arg	Trp	Gln	Glu	Gly 300	Asn	Val	Phe	Ser		
Cys 305	Ser	Val	Met	His	Glu 310	Ala	Leu	His	Asn	His 315	Tyr	Thr	Gln	Lys	Ser 320		
Leu	Ser	Leu	Ser	Leu 325	Gly	Lys											

_SL

<210> 190
<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 190
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Leu Ser Leu Ser Leu Gly
325

<210> 191
<211> 330
<212> PRT
<213> Artificial sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 191
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

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

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

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

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

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

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

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 115 120 125
 Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 130 135 140
 Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 145 150 155 160
 Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
 165 170 175
 Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 180 185 190
 His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 195 200 205
 Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 210 215 220
 Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 225 230 235 240
 Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 245 250 255
 Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 260 265 270
 Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 275 280 285
 Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 290 295 300
 Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 305 310 315 320
 Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 325 330

<210> 192

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 192

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys

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

275														280				_SL		285			
Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn								
	290					295					300												
Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr								
305					310					315					320								
Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys														
				325					330														

_SL

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

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

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

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

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

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

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

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

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

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

<210> 194

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 194

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

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

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

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

_SL

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

_SL

<210> 195
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 195
Gly Tyr Thr Phe Thr Ser Tyr Trp Met Tyr
1 5 10

<210> 196
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 196
gaagtgcagc tgggtgcagtc tggcgccgaa gtgaagaaac ccggcgctac cgtgaagatc 60
tcctgcaagg tgtccggcta caccttcacc agctactgga tgtactgggt gcgacaggct 120
accggccagg gcctggaatg gatgggcaga atcgaccca actccggctc caccaagtac 180
aacgagaagt tcaagaaccg cgtgaccatc accgccgaca agtccacctc caccgcctac 240
atggaactgt cctccctgcg gagcgaggac accgccgtgt actactgcgc cagagactac 300
cggaagggcc tgtacgcat ggactattgg ggccagggca ccaccgtgac cgtgtcctct 360

<210> 197
<211> 446
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 197
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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cggtggtgt	ccgtgctgac	cggtgctgcac	caggactggc	tgaacggcaa	agagtacaag	960
tgtaaggtct	ccaacaaggg	cctgcccaagc	agcatcgaaa	agaccatcag	caaggccaag	1020
ggccagccta	gagagcccca	ggtctacacc	ctgccaccca	gccaagagga	gatgaccaag	1080
aaccaggtgt	ccctgacctg	tctggtgaag	ggcttctacc	caagcgacat	cgccgtggag	1140
tgggagagca	acggccagcc	cgagaacaac	tacaagacca	cccccccagt	gctggacagc	1200
gacggcagct	tcttcctgta	cagcaggctg	accgtggaca	agtccagatg	gcaggagggc	1260
aacgtcttta	gctgctccgt	gatgcacgag	gccctgcaca	accactacac	ccagaagagc	1320
ctgagcctgt	ccctgggctg	atgaattc				1348

<210> 199
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 199		
gagatcgtgc	tgaccagtc	ccccgacttc cagtccgtga ccccaaaga aaaagtgacc 60
atcacatgca	aggcctccca	ggacgtgggc accgccgtgg cttggtatct gcagaagcct 120
ggccagtccc	ctcagctgct	gatctactgg gcctctacca gacacaccgg cgtgcccagc 180
agattctccg	gctctggctc	tggcaccgac ttcaccctga agatctcccg ggtggaagcc 240
gaggatgtgg	gcgtgtacta	ctgccagcag tacaactcct accccctgac cttcggccag 300
ggcaccaagg	tggaatcaa	g 321

<210> 200
 <211> 652
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 200		
gagatcgtgc	tgaccagtc	ccccgacttc cagtccgtga ccccaaaga aaaagtgacc 60
atcacatgca	aggcctccca	ggacgtgggc accgccgtgg cttggtatct gcagaagcct 120
ggccagtccc	ctcagctgct	gatctactgg gcctctacca gacacaccgg cgtgcccagc 180
agattctccg	gctctggctc	tggcaccgac ttcaccctga agatctcccg ggtggaagcc 240
gaggatgtgg	gcgtgtacta	ctgccagcag tacaactcct accccctgac cttcggccag 300
ggcaccaagg	tggaatcaa	gcgtacggtg gccgtccca gcgtgttcat cttccccca 360
agcgacgagc	agctgaagag	cggcaccgcc agcgtggtgt gtctgctgaa caacttctac 420
cccagggagg	ccaaggtgca	gtggaagggtg gacaacgccc tgcagagcgg caacagccag 480

gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
 ctgagcaagg ccgactacga gaagcacaag gtgtacgcct gtgaggtgac ccaccagggc 600
 ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gctgatgaat tc 652

<210> 201
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 201
 gaagtgcagc tggtgcagtc tggcgccgaa gtgaagaagc ctggcgagtc cctgcggatc 60
 tcctgcaagg gctccggcta caccttcacc agctactgga tgtactggat ccggcagccc 120
 cctggcaagg gcctggaatg gatcggcaga atcgaccca actccggctc caccaagtac 180
 aacgagaagt tcaagaaccg cgtgaccatc accgccgaca agtccacctc caccgcctac 240
 atggaactgt cctccctgag atccgaggac accgccgtgt actactgcgc cagagactac 300
 cggaagggcc tgtacgcat ggactattgg ggccaggga ccaccgtgac cgtgtcctct 360

<210> 202
 <211> 1348
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 202
 gaagtgcagc tggtgcagtc tggcgccgaa gtgaagaagc ctggcgagtc cctgcggatc 60
 tcctgcaagg gctccggcta caccttcacc agctactgga tgtactggat ccggcagccc 120
 cctggcaagg gcctggaatg gatcggcaga atcgaccca actccggctc caccaagtac 180
 aacgagaagt tcaagaaccg cgtgaccatc accgccgaca agtccacctc caccgcctac 240
 atggaactgt cctccctgag atccgaggac accgccgtgt actactgcgc cagagactac 300
 cggaagggcc tgtacgcat ggactattgg ggccaggga ccaccgtgac cgtgtcctct 360
 gcttctacca agggcccaag cgtgttcccc ctggccccct gctccagaag caccagcgag 420
 agcacagccg ccctgggctg cctggtgaag gactacttcc ccgagcccgt gaccgtgtcc 480
 tggaacagcg gagccctgac cagcggcgtg cacaccttcc ccgccgtgct gcagagcagc 540
 ggcctgtaca gcctgagcag cgtggtgacc gtgcccagca gcagcctggg caccaagacc 600
 tacacctgta acgtggacca caagcccagc aacaccaagg tggacaagag ggtggagagc 660
 aagtacggcc caccctgccc cccctgccc gcccccagat tcctgggagg acccagcggtg 720
 ttctgttcc ccccaagcc caaggacacc ctgatgatca gcagaacccc cgagggtgacc 780

tgtgtggtgg tggacgtgtc ccaggaggac	cccgaggtcc agttcaactg gtacgtggac	840
ggcgtggagg tgcacaacgc caagaccaag	cccagagagg agcagtttaa cagcacctac	900
cgggtggtgt ccgtgctgac cgtgctgcac	caggactggc tgaacggcaa agagtacaag	960
tgtaaggtct ccaacaaggg cctgccaaagc	agcatcgaaa agaccatcag caaggccaag	1020
ggccagccta gagagcccca ggtctacacc	ctgccacca gccaaagga gatgaccaag	1080
aaccaggtgt ccctgacctg tctggtgaag	ggcttctacc caagcgacat cgccgtggag	1140
tgggagagca acggccagcc cgagaacaac	tacaagacca cccccccagt gctggacagc	1200
gacggcagct tcttcctgta cagcaggctg	accgtggaca agtccagatg gcaggagggc	1260
aacgtcttta gctgctccgt gatgcacgag	gccctgcaca accactacac ccagaagagc	1320
ctgagcctgt ccctgggctg atgaattc		1348

<210> 203
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 203		
gagatcgtgc tgaccagtc ccccgacttc	cagtccgtga ccccaaaga aaaagtgacc	60
atcacatgca aggcctccca ggacgtgggc	accgccgtgg cttggtatct gcagaagcct	120
ggccagtccc ctcagctgct gatctactgg	gcctctacca gacacaccgg cgtgccctcc	180
agattctccg gctctggctc tggcaccgac	tttaccttca ccatctccag cctgcagccc	240
gaggatatcg ccacctacta ctgccagcag	tacaactcct accccctgac cttcggccag	300
ggcaccaagg tggaaatcaa g		321

<210> 204
 <211> 652
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 204		
gagatcgtgc tgaccagtc ccccgacttc	cagtccgtga ccccaaaga aaaagtgacc	60
atcacatgca aggcctccca ggacgtgggc	accgccgtgg cttggtatct gcagaagcct	120
ggccagtccc ctcagctgct gatctactgg	gcctctacca gacacaccgg cgtgccctcc	180
agattctccg gctctggctc tggcaccgac	tttaccttca ccatctccag cctgcagccc	240
gaggatatcg ccacctacta ctgccagcag	tacaactcct accccctgac cttcggccag	300
ggcaccaagg tggaaatcaa gcgtacggtg	gccgctccca gcgtgttcat cttcccccca	360

agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gtctgctgaa caacttctac 420
 cccagggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag 480
 gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
 ctgagcaagg ccgactacga gaagcacaag gtgtacgcct gtgaggtgac ccaccagggc 600
 ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gctgatgaat tc 652

<210> 205
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 205
 agaatcgacc ccaactccgg ctccaccaag tacaacgaga agttcaagaa c 51

<210> 206
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 206
 gactaccgga agggcctgta cgccatggac tat 33

<210> 207
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 207
 ggctacacct tcaccagcta c 21

<210> 208
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic oligonucleotide"

<400> 208
 gacccaact ccggctcc 18

<210> 209

<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 209
aaggcctccc aggacgtggg caccgccgtg gct 33

<210> 210
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 210
tgggcctcta ccagacacac c 21

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 211
cagcagtaca actcctaccc cctgacc 27

<210> 212
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 212
tcccaggacg tgggcaccgc c 21

<210> 213
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 213
tgggcctct 9

<210> 214
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 214
tacaactcct accccctg 18

<210> 215
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 215
gaagtgcagc tggcgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgagaatt 60
agctgtaaag gttca 75

<210> 216
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 216
gaagtgcagc tggcgcagtc tggcgccgaa gtgaagaagc ctggcgagtc cctgcggatc 60
tcctgcaagg gctcc 75

<210> 217
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 217
gaagtgcagc tggcgcagtc tggcgccgaa gtgaagaaac ccggcgctac cgtgaagatc 60
tcctgcaagg tgtcc 75

<210> 218
<211> 75
<212> DNA
<213> Artificial Sequence

_SL

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 218
gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt 60
agctgtaaaag tctca 75

<210> 219
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 219
tgggtgcgac aggctaccgg ccagggcctg gaatggatgg gc 42

<210> 220
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 220
tgggtccgac aggctaccgg tcaaggcctg gagtggatgg gt 42

<210> 221
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 221
tgggtccgac aggcccccagg gcaaggcctg gagtggatgg gt 42

<210> 222
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 222
tggatccggc agccccctgg caagggcctg gaatggatcg gc 42

<210> 223

<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 223
tgggtccgac aggctagagg gcaaagactg gagtggatcg gt 42

<210> 224
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 224
cgcgtgacca tcaccgccga caagtccacc tccaccgcct acatggaact gtcctccctg 60
cggagcgagg acaccgccgt gtactactgc gccaga 96

<210> 225
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 225
cgcgtgacca tcaccgccga caagtccacc tccaccgcct acatggaact gtcctccctg 60
agatccgagg acaccgccgt gtactactgc gccaga 96

<210> 226
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 226
agagtgacta tcaccgccga taagtctact agcaccgcct atatggaact gtctagcctg 60
agatcagagg acaccgccgt ctactactgc gctaga 96

<210> 227
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 227
agagtgacta ttagcgtgga cacctctaag aatcagttta gcctgaagct gtctagcgtg 60
accgccgctg acaccgccgt ctactactgc gctaga 96

<210> 228
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 228
aggttcacta ttagtaggga taactctaag aacaccctgt acctgcagat gaatagcctg 60
agagccgagg acaccgccgt ctactactgc gctaga 96

<210> 229
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 229
tggggccagg gcaccaccgt gaccgtgtcc tct 33

<210> 230
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 230
tgggggtcaag gcactaccgt gaccgtgtct tca 33

<210> 231
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 231
gagatcgtgc tgaccagtc ccccgacttc cagtccgtga ccccaaaga aaaagtgacc 60
atcacatgc 69

<210> 232
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 232
gagatcgtcc tgactcagtc acccgacttt cagtcagtga ccctaaaga gaaagtcact 60
atcacctgt 69

<210> 233
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 233
gacgtcgtga tgactcagtc acccctgagc ctgcccgtga ccctggggca gcccgcctct 60
attagctgt 69

<210> 234
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 234
gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
atcacctgt 69

<210> 235
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 235
tggtatcagc agaagccagg gcaagcccct agactgctga tctac 45

<210> 236
<211> 45
<212> DNA
<213> Artificial Sequence

_SL

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 236
tggtatctgc agaagcctgg ccagtcccct cagctgctga tctac 45

<210> 237
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 237
tggtatctgc agaagcctgg tcaatcacct cagctgctga tctac 45

<210> 238
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 238
ggcgtgccct ctaggttttag cggtagcggg agtggcaccg agttcacct gactatctct 60
tcactgcagc ccgacgactt cgctacctac tactgt 96

<210> 239
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 239
ggcgtgccct ctaggttttag cggtagcggg agtggcaccg acttcacctt cactatctct 60
tcactgcagc ccgaggatat cgctacctac tactgt 96

<210> 240
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 240
ggcgtgccct ccagattctc cggtcttggc tctggcaccg actttacctt caccatctcc 60

agcctgcagc ccgaggatat cgccacctac tactgc^{_SL} 96

 <210> 241
 <211> 96
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 241
 ggcgtgcccg acagattctc cggctctggc tctggcaccg acttcaccct gaagatctcc 60
 cgggtggaag ccgaggatgt gggcgtgtac tactgc 96

 <210> 242
 <211> 96
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 242
 ggcgtgccct ctaggtttag cggtagcggc agtggcaccg acttcacctt cactatctct 60
 tcactggaag ccgaggacgc cgctacctac tactgt 96

 <210> 243
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 243
 ttcggccagg gcaccaaggt ggaaatcaag 30

 <210> 244
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 244
 ttcggtcaag gcactaaggt cgagattaag 30

 <210> 245
 <211> 33
 <212> DNA
 <213> Artificial Sequence

_SL

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 245
aaggccagtc aggatgtggg tactgctgta gcc

33

<210> 246
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 246
tgggcatcca cccggcacac t

21

<210> 247
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 247
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

_SL

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

_SL

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

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

<210> 248
<211> 98
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 248
Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala
1 5 10 15

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

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

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

Lys Ser Lys Ala Thr Leu Thr Val Asp Lys Pro Ser Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg

<210> 249
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 249
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

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

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45
Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80
Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln Tyr Ser Ser Tyr Pro Leu
85 90 95
Thr Phe Gly Ala Gly Ser Lys Leu Glu Leu Lys
100 105

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 250
Glu Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

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

Gly

<210> 251
<211> 113
<212> PRT
<213> Artificial sequence

_SL

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 251

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

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

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

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

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

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

Gly

<210> 252

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 252

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

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

_SL

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

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

Gly

<210> 253
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 253
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

Gly

<210> 254
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 254
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu

_SL

Gly

<210> 256
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 256
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

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

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

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

Gly

<210> 257
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 257
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

Trp Met Tyr Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu Trp Leu
 35 40 45
 Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
 50 55 60
 Lys Asn Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Val
 65 70 75 80
 Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
 100 105 110

Gly

<210> 258
 <211> 113
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 258
 Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1 5 10 15
 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
 50 55 60
 Lys Asn 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 Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
 100 105 110

Gly

<210> 259

_SL

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 259
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

Gly

<210> 260
<211> 446
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 260
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

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

_SL

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

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

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

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

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

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

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

Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
325 330 335

_SL

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

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
355 360 365

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

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

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

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

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

<210> 261

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 261

Gly Tyr Thr Phe Thr Thr Tyr
1 5

<210> 262

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 262

Tyr Pro Gly Thr Gly Gly
1 5

<210> 263

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

_SL

<400> 263
Trp Thr Thr Gly Thr Gly Ala Tyr
1 5

<210> 264
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 264
Ser Gln Ser Leu Leu Asp Ser Gly Asn Gln Lys Asn Phe
1 5 10

<210> 265
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 265
Trp Ala Ser
1

<210> 266
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 266
Asp Tyr Ser Tyr Pro Tyr
1 5

<210> 267
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 267
Thr Tyr Trp Met His
1 5

<210> 268
<211> 17

_SL

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 268
Asn Ile Tyr Pro Gly Thr Gly Gly Ser Asn Phe Asp Glu Lys Phe Lys
1 5 10 15

Asn

<210> 269
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 269
Lys Ser Ser Gln Ser Leu Leu Asp Ser Gly Asn Gln Lys Asn Phe Leu
1 5 10 15

Thr

<210> 270
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 270
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 271
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 271
Gln Asn Asp Tyr Ser Tyr Pro Tyr Thr
1 5

<210> 272
<211> 10

_SL

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 272
Gly Tyr Thr Phe Thr Thr Tyr Trp Met His
1 5 10

<210> 273
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 273
Asn Tyr Gly Met Asn
1 5

<210> 274
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 274
Gly Phe Thr Leu Thr Asn Tyr
1 5

<210> 275
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 275
Gly Phe Thr Leu Thr Asn Tyr Gly Met Asn
1 5 10

<210> 276
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

_SL

<400> 276

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

Gly

<210> 277

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 277

Asn Pro Pro Tyr Tyr Tyr Gly Thr Asn Asn Ala Glu Ala Met Asp Tyr
1 5 10 15

<210> 278

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 278

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

<210> 279

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 279

Tyr Thr Ser Thr Leu His Leu
1 5

<210> 280

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 280

Gln Gln Tyr Tyr Asn Leu Pro Trp Thr
1 5

<210> 281
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 281
Asn Thr Asp Thr Gly Glu
1 5

<210> 282
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 282
Ser Gln Asp Ile Ser Asn Tyr
1 5

<210> 283
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 283
Tyr Thr Ser
1

<210> 284
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 284
Tyr Tyr Asn Leu Pro Trp
1 5

<210> 285
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial^{_SL} Sequence: Synthetic peptide"

<400> 285
Gly Tyr Thr Phe Thr Ser Tyr
1 5

<210> 286
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 286
Tyr Pro Gly Asn Gly Asp
1 5

<210> 287
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 287
Val Gly Gly Ala Phe Pro Met Asp Tyr
1 5

<210> 288
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 288
Ser Glu Ser Val Glu Tyr Tyr Gly Thr Ser Leu
1 5 10

<210> 289
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 289
Ala Ala Ser
1

_SL

<210> 290
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 290
Ser Arg Lys Asp Pro Ser
1 5

<210> 291
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 291
Ser Tyr Asn Met His
1 5

<210> 292
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 292
Asp Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe Lys
1 5 10 15

Gly

<210> 293
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 293
Arg Ala Ser Glu Ser Val Glu Tyr Tyr Gly Thr Ser Leu Met Gln
1 5 10 15

<210> 294
<211> 7
<212> PRT
<213> Artificial Sequence

_SL

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 294
Ala Ala Ser Asn Val Glu Ser
1 5

<210> 295
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 295
Gln Gln Ser Arg Lys Asp Pro Ser Thr
1 5

<210> 296
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 296
Tyr Pro Gly Ser Gly Asp
1 5

<210> 297
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 297
Asp Ile Tyr Pro Gly Ser Gly Asp Thr Ser Tyr Asn Gln Lys Phe Lys
1 5 10 15

Gly

<210> 298
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

_SL

peptide"

<400> 298

Tyr Pro Gly Gln Gly Asp
1 5

<210> 299

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 299

Asp Ile Tyr Pro Gly Gln Gly Asp Thr Ser Tyr Asn Gln Lys Phe Lys
1 5 10 15

Gly

<210> 300

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 300

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

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

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

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

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

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

_SL

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

_SL

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

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

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

<210> 301
<211> 215
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 301
Glu Thr Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Leu Gly Ser Ser
20 25 30

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

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

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

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

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

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala ^{_SL} Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 302
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 302
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 Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn 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 Gly Leu Trp Glu Val Arg Ala Leu Pro Ser Val Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 303
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 303
Ser Tyr Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Gln
1 5 10 15

_SL

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

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

Glu Asp Ile Ile Arg Pro Ser Gly Ile Pro Glu Arg Ile Ser Gly Ser
50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Arg Asp Ser Asp Gln
85 90 95

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

<210> 304

<211> 440

<212> PRT

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 304

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

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

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

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

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

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

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

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

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Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
130 135 140

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
145 150 155 160

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

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys
180 185 190

Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp
195 200 205

Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala
210 215 220

Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
225 230 235 240

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
245 250 255

Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
260 265 270

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
275 280 285

Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
290 295 300

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
305 310 315 320

Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
325 330 335

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr
340 345 350

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
355 360 365

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
370 375 380

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
385 390 395 400

_SL

Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe
405 410 415

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
420 425 430

Ser Leu Ser Leu Ser Leu Gly Lys
435 440

<210> 305

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 305

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

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Ser Asn Trp Pro Arg
85 90 95

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

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr^{_SL} Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 306

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 306

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

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

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

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

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

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

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

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

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

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

<210> 307

_SL

<211> 218

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 307

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

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

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

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

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

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

Asp Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105 110

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
115 120 125

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 308

<211> 118

_SL

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 308

Glu Val Gln Leu Leu 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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 309

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 309

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser^{SL} 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 Arg Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 310
<211> 253
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 310
Met Ala Pro Arg Arg Ala Arg Gly Cys Arg Thr Leu Gly Leu Pro Ala
1 5 10 15

Leu Leu Leu Leu Leu Leu Leu Arg Pro Pro Ala Thr Arg Gly Asp Tyr
20 25 30

Lys Asp Asp Asp Asp Lys Ile Glu Gly Arg Ile Thr Cys Pro Pro Pro
35 40 45

Met Ser Val Glu His Ala Asp Ile Trp Val Lys Ser Tyr Ser Leu Tyr
50 55 60

Ser Arg Glu Arg Tyr Ile Cys Asn Ser Gly Phe Lys Arg Lys Ala Gly
65 70 75 80

Thr Ser Ser Leu Thr Glu Cys Val Leu Asn Lys Ala Thr Asn Val Ala
85 90 95

His Trp Thr Thr Pro Ser Leu Lys Cys Ile Arg Asp Pro Ala Leu Val
100 105 110

His Gln Arg Pro Ala Pro Pro Ser Gly Gly Ser Gly Gly Gly Ser
115 120 125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu Gln Asn Trp Val Asn Val
130 135 140

Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser Met His Ile
145 150 155 160

Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His Pro Ser Cys Lys Val
165 170 175

Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln Val Ile Ser Leu Glu
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<div> <div>180</div> <div>185</div> <div>—SL</div> <div>190</div> </div>															
Ser	Gly	Asp 195	Ala	Ser	Ile	His	Asp 200	Thr	Val	Glu	Asn	Leu 205	Ile	Ile	Leu
Ala	Asn 210	Asn	Ser	Leu	Ser	Ser 215	Asn	Gly	Asn	Val	Thr 220	Glu	Ser	Gly	Cys
Lys 225	Glu	Cys	Glu	Glu	Leu 230	Glu	Glu	Lys	Asn	Ile 235	Lys	Glu	Phe	Leu	Gln 240
Ser	Phe	Val	His	Ile 245	Val	Gln	Met	Phe	Ile 250	Asn	Thr	Ser			

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<210> 311
<211> 263
<212> PRT
<213> Artificial Sequence
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<220>  
<221> source  
<223> /note="Description of Artificial Sequence: Synthetic  
polypeptide"
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<400> 311
Met Asp Ser Lys Gly Ser Ser Gln Lys Ala Gly Ser Arg Leu Leu Leu
1 5 10 15

Leu Leu Val Val Ser Asn Leu Leu Leu Cys Gln Gly Val Val Ser Thr
20 25 30

Thr Arg Asp Tyr Lys Asp Asp Asp Asp Lys Ile Glu Gly Arg Asn Trp
35 40 45

Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile Gln Ser
50 55 60

Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His Pro Ser
65 70 75 80

Cys Lys Val Thr Ala Met Lys Cys Phe Leu Leu Glu Leu Gln Val Ile
85 90 95

Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu Asn Leu
100 105 110

Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val Thr Glu
115 120 125

Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile Lys Glu
130 135 140

Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn Thr Ser
145 150 155 160

_SL

Ser Gly Gly Gly Ser Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
165 170 175

Gly Gly Gly Ser Gly Gly Gly Ser Leu Gln Ile Thr Cys Pro Pro Pro
180 185 190

Met Ser Val Glu His Ala Asp Ile Trp Val Lys Ser Tyr Ser Leu Tyr
195 200 205

Ser Arg Glu Arg Tyr Ile Cys Asn Ser Gly Phe Lys Arg Lys Ala Gly
210 215 220

Thr Ser Ser Leu Thr Glu Cys Val Leu Asn Lys Ala Thr Asn Val Ala
225 230 235 240

His Trp Thr Thr Pro Ser Leu Lys Cys Ile Arg Asp Pro Ala Leu Val
245 250 255

His Gln Arg Pro Ala Pro Pro
260

<210> 312

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 312

Glu Val Gln Leu Leu 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 Gly Ile Gly Ser Tyr Gly Gly Gly 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 Val Asn Phe Gly Met Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

_SL

Val Thr Val Ser Ser
115

<210> 313
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 313
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln 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

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

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

<210> 314
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 314
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 315
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 315
Ile Gly Ser Tyr Gly Gly Gly Thr
1 5

<210> 316
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 316
Ala Arg Tyr Val Asn Phe Gly Met Asp Tyr
1 5 10

<210> 317
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 317
Gln Ser Ile Ser Ser Tyr
1 5

<210> 318
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 318
Gln Gln Tyr Gly Arg Asn Pro Pro Thr
1 5

<210> 319
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 319
Glu Val Gln Leu Leu 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

_SL

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

Thr Val Ser Ser
115

<210> 320

<211> 107

<212> PRT

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 320

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln 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

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

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

<210> 321

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 321

Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 322

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 322

Ala Arg Arg Val Trp Gly Phe Asp Tyr
1 5

<210> 323

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 323

Gln Gln Tyr Gly Val Tyr Pro Phe Thr
1 5

<210> 324

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<220>

<221> MOD_RES

<222> (120)..(120)

<223> Any amino acid

<220>

<221> MOD_RES

<222> (124)..(125)

<223> Any amino acid

<400> 324

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

Ser Val Lys Leu Ser Cys Ala Ser Gly Phe^{SL} Ile Ile Lys Ala Thr Tyr
20 25 30

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

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

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

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

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

Ser Ala Lys Thr Thr Pro Pro Xaa Val Tyr Pro Xaa Xaa Pro Gly Ser
115 120 125

<210> 325

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 325

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

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

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

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

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

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

Thr Phe Gly Ala Gly Thr Lys Leu Glu Val Lys Arg Ala Asp Ala Ala
100 105 110

Pro Thr Val Ser Ile Phe Pro Pro Ser Ser Glu Glu Leu Ser Leu

115

120

_SL

125

<210> 326
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 326
 Gly Phe Ile Ile Lys Ala Thr Tyr Met His
 1 5 10

<210> 327
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 327
 Arg Ile Asp Pro Ala Asn Gly Glu Thr Lys Tyr Asp Pro Lys Phe Gln
 1 5 10 15

Val

<210> 328
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 328
 Tyr Ala Trp Tyr Phe Asp Val
 1 5

<210> 329
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 329
 Arg Ala Ser Glu Asn Ile Tyr Ser Phe Leu Ala
 1 5 10

<210> 330

_SL

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 330
His Ala Lys Thr Leu Ala Glu
1 5

<210> 331
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 331
Gln His Tyr Tyr Gly Ser Pro Leu Thr
1 5

<210> 332
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 332
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

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

Ala Ala Ile Asn Gln Asp Gly Ser Glu Lys Tyr Tyr Val Gly 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 Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Val Arg Asp Tyr Tyr Asp Ile Leu Thr Asp Tyr Tyr Ile His Tyr Trp
100 105 110

Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 ^{_SL} 125

<210> 333
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 333
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

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

Ala Ala Ile Asn Gln Asp Gly Ser Glu Lys Tyr Tyr Val Gly 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 Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Val Arg Asp Tyr Tyr Asp Ile Leu Thr Asp Tyr Tyr Ile His Tyr Trp
100 105 110

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

<210> 334
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 334
Asn Tyr Trp Met Asn
1 5

<210> 335
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

_SL

<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 335
Ala Ile Asn Gln Asp Gly Ser Glu Lys Tyr Tyr Val Gly Ser Val Lys
1 5 10 15

Gly

<210> 336
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 336
Asp Tyr Tyr Asp Ile Leu Thr Asp Tyr Tyr Ile His Tyr Trp Tyr Phe
1 5 10 15

Asp Leu

<210> 337
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 337
Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 338
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 338
Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 339
<211> 446
<212> PRT
<213> Artificial Sequence

<220>

_SL

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 339

Glu Val Gln Leu Val Glu Ser Gly Gly Asp 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

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

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

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

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

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

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

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

Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr
210 215 220

Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe
225 230 235 240

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
245 250 255

_SL

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

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

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

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

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

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

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
355 360 365

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

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

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

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
420 425 430

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

<210> 340

<211> 214

<212> PRT

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 340

Ala 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 Pro Ser Gln Gly Ile Asn Trp Glu
20 25 30

35 40 _SL 45
 Gly Val Ile Asn Pro Met Tyr Gly Thr Thr Asp Tyr Asn Gln Arg Phe
 50 55 60
 Lys 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 Tyr Asp Tyr Phe Thr Gly Thr Gly Val Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 342
 <211> 112
 <212> PRT
 <213> Artificial sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 342
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1 5 10 15
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Arg Ser Leu Val His Ser
 20 25 30
 Arg Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ile Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
 85 90 95
 Thr His Leu Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105 110

<210> 343
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>

_SL

<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 343
Arg Tyr Gly Ile Ser
1 5

<210> 344
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 344
Trp Ile Ser Thr Tyr Ser Gly Asn Thr Asn Tyr Ala Gln Lys Leu Gln
1 5 10 15

Gly

<210> 345
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 345
Arg Gln Leu Tyr Phe Asp Tyr
1 5

<210> 346
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 346
Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 347
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

_SL

<400> 347

Asp Ala Ser Thr Arg Ala Thr
1 5

<210> 348

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 348

Gln Gln Tyr Asp Asn Trp Pro Leu Thr
1 5

<210> 349

<211> 137

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 349

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Val Tyr Gly Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ala Ile Ile Trp Tyr Asp Gly Asp Asn Gln Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Gly Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Asp Leu Arg Thr Gly Pro Phe Asp Tyr Trp Gly
115 120 125

Gln Gly Thr Leu Val Thr Val Ser Ser
130 135

<210> 350

_SL

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 350
Met Leu Pro Ser Gln Leu Ile Gly Phe Leu Leu Leu Trp Val Pro Ala
1 5 10 15

Ser Arg Gly Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val
20 25 30

Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile
35 40 45

Gly Ser Ser Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys
50 55 60

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

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser
85 90 95

Leu Glu Ala Glu Asp Ala Ala Ala Tyr Tyr Cys His Gln Ser Ser Ser
100 105 110

Leu Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
115 120 125

<210> 351
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 351
Gly Asp Ser Val Ser Ser Asn Ser Ala Ala Trp Gly
1 5 10

<210> 352
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 352

Arg Ile Tyr Tyr Arg Ser Lys Trp Tyr Asn Ser Tyr Ala Val Ser Val
 1 5 10 15

Lys Ser

<210> 353
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 353
 Arg Ala Ser Gln Phe Ile Ser Ser Ser Tyr Leu Ser
 1 5 10

<210> 354
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 354
 Leu Leu Ile Tyr Gly Ser Ser Ser Arg Ala Thr
 1 5 10

<210> 355
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 355
 Gln Gln Leu Tyr Ser Ser Pro Met
 1 5

<210> 356
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 356
 Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly^{-SL} Asp Ser Val Ser Ser Asn
 20 25 30
 Ser Ala Ala Trp Gly Trp Ile Arg Gln Ser Pro Gly Arg Gly Leu Glu
 35 40 45
 Trp Leu Gly Arg Ile Tyr Tyr Arg Ser Lys Trp Tyr Asn Ser Tyr Ala
 50 55 60
 Val Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
 65 70 75 80
 Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
 85 90 95
 Tyr Tyr Cys Ala Arg Tyr Asp Trp Val Pro Lys Ile Gly Val Phe Asp
 100 105 110
 Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 357

<211> 110

<212> PRT

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 357

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

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

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

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

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

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

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

<210> 358

_SL

<211> 454

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 358

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

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

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

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

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

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Ala Arg Tyr Asp Trp Val Pro Lys Ile Gly Val Phe Asp
100 105 110

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

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

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

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
165 170 175

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
180 185 190

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

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro
210 215 220

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
225 230 235 240

_SL

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
245 250 255

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
260 265 270

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

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

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
305 310 315 320

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

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

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

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
370 375 380

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

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

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
420 425 430

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
435 440 445

Ser Leu Ser Pro Gly Lys
450

<210> 359

<211> 215

<212> PRT

<213> Artificial sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

_SL

<400> 359

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

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

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

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

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

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

Met Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 360

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 360

_SL

Arg Gly Asp Ser
1

<210> 361
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 361
Gln Gln Tyr Gly Ser Ser Pro Cys Thr
1 5

<210> 362
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 362
Tyr Asp Trp Val Pro Lys Ile Gly Val Phe Asp Ser
1 5 10