SEQUENCE LISTING

<110> GENERATION BIO CO.

<120> MODULATION OF REP PROTEIN ACTIVITY IN CLOSE-ENDED DNA (CEDNA) PRODUCTION

<130> 131698-05420

<140>
<141>

<150> 62/806,076
<151> 2019-02-15

<160> 606

<170> PatentIn version 3.5

<210> 1
<211> 141
<212> DNA
<213> Artificial Sequence

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

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ccgggcgacc aaaggtcgcc cgacgcccgg gctttgcccg ggcggcctca gtgagcgagc 120

gagcgcgcag ctgcctgcag g 141

<210> 2
<211> 130
<212> DNA
<213> Artificial Sequence

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

<400> 2
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ccgggcgacc aaaggtcgcc cgacgcccgg gcggcctcag tgagcgagcg agcgcgcagc 120

tgcctgcagg 130

<210> 3
<211> 1923
<212> DNA
<213> Artificial Sequence

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

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aatatgaccg ccatgttggc attgattatt gactagttat taatagtaat caattacggg 180

gtcattagtt catagcccat atatggagtt ccgcgttaca taacttacgg taaatggccc 240

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cggtaaatgg cccgcctggc attatgccca gtacatgacc ttacgggact ttcctacttg 480

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cttcactctc cccatctccc ccccctcccc acccccaatt ttgtatttat ttatttttta 600

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gcggggcgag gggcggggcg gggcgaggcg gagaggtgcg gcggcagcca atcagagcgg 720

cgcgctccga aagtttcctt ttatggcgag gcggcggcgg cggcggccct ataaaaagcg 780

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ttctttttcc tacagctcct gggcaacgtg ctggttattg tgctgtctca tcatttgtcg 1860

acagaattcc tcgaagatcc gaaggggttc aagcttggca ttccggtact gttggtaaag 1920

cca 1923

<210> 4
<211> 1272
<212> DNA
<213> Artificial Sequence

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

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ccatcctcca gcagctgttt gtgtgctgcc tctgaagtcc acactgaaca aacttcagcc 120

tactcatgtc cctaaaatgg gcaaacattg caagcagcaa acagcaaaca cacagccctc 180

cctgcctgct gaccttggag ctggggcaga ggtcagagac ctctctgggc ccatgccacc 240

tccaacatcc actcgacccc ttggaatttc ggtggagagg agcagaggtt gtcctggcgt 300

ggtttaggta gtgtgagagg gtccgggttc aaaaccactt gctgggtggg gagtcgtcag 360

taagtggcta tgccccgacc ccgaagcctg tttccccatc tgtacaatgg aaatgataaa 420

gacgcccatc tgatagggtt tttgtggcaa ataaacattt ggtttttttg ttttgttttg 480

ttttgttttt tgagatggag gtttgctctg tcgcccaggc tggagtgcag tgacacaatc 540

tcatctcacc acaaccttcc cctgcctcag cctcccaagt agctgggatt acaagcatgt 600

gccaccacac ctggctaatt ttctattttt agtagagacg ggtttctcca tgttggtcag 660

cctcagcctc ccaagtaact gggattacag gcctgtgcca ccacacccgg ctaatttttt 720

ctatttttga cagggacggg gtttcaccat gttggtcagg ctggtctaga ggtaccggat 780

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ggtactctcc cagagactgt ctgactcacg ccacccccctc caccttggac acaggacgct 900

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cccaggcaaa gcgtccgggc agcgtaggcg ggcgactcag atcccagcca gtggacttag 1020

cccctgtttg ctcctccgat aactggggtg accttggtta atattcacca gcagcctccc 1080

ccgttgcccc tctggatcca ctgcttaaat acggacgagg acagggccct gtctcctcag 1140

cttcaggcac caccactgac ctgggacagt gaatccggac tctaaggtaa atataaaatt 1200

tttaagtgta taatgtgtta aactactgat tctaattgtt tctctctttt agattccaac 1260

ctttggaact ga 1272

<210> 5
<211> 547
<212> DNA
<213> Artificial Sequence

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

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tgaccttgga gctggggcag aggtcagaga cctctctggg cccatgccac ctccaacatc 120

cactcgaccc cttggaattt ttcggtggag aggagcagag gttgtcctgg cgtggtttag 180

gtagtgtgag aggggaatga ctcctttcgg taagtgcagt ggaagctgta cactgcccag 240

gcaaagcgtc cgggcagcgt aggcgggcga ctcagatccc agccagtgga cttagcccct 300

gtttgctcct ccgataactg gggtgacctt ggttaatatt caccagcagc ctcccccgtt 360

gcccctctgg atccactgct taaatacgga cgaggacagg gccctgtctc ctcagcttca 420

ggcaccacca ctgacctggg acagtgaatc cggactctaa ggtaaatata aaatttttaa 480

gtgtataatg tgttaaacta ctgattctaa ttgtttctct cttttagatt ccaacctttg 540

gaactga 547

<210> 6
<211> 1179
<212> DNA
<213> Artificial Sequence

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

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ggaggggtcg gcaattgaac cggtgcctag agaaggtggc gcggggtaaa ctgggaaagt 120

gatgtcgtgt actggctccg cctttttccc gagggtgggg gagaaccgta tataagtgca 180

gtagtcgccg tgaacgttct ttttcgcaac gggtttgccg ccagaacaca ggtaagtgcc 240

gtgtgtggtt cccgcgggcc tggcctcttt acgggttatg gcccttgcgt gccttgaatt 300

acttccacct ggctgcagta cgtgattctt gatcccgagc ttcgggttgg aagtgggtgg 360

gagagttcga ggccttgcgc ttaaggagcc ccttcgcctc gtgcttgagt tgaggcctgg 420

cctgggcgct ggggccgccg cgtgcgaatc tggtggcacc ttcgcgcctg tctcgctgct 480

ttcgataagt ctctagccat ttaaaatttt tgatgacctg ctgcgacgct ttttttctgg 540

caagatagtc ttgtaaatgc gggccaagat ctgcacactg gtatttcggt ttttggggcc 600

gcgggcggcg acggggcccg tgcgtcccag cgcacatgtt cggcgaggcg gggcctgcga 660

gcgcggccac cgagaatcgg acgggggtag tctcaagctg gccggcctgc tctggtgcct 720

ggtctcgcgc cgccgtgtat cgccccgccc tgggcggcaa ggctggcccg gtcggcacca 780

gttgcgtgag cggaaagatg gccgcttccc ggccctgctg cagggagctc aaaatggagg 840

acgcggcgct cgggagagcg ggcgggtgag tcacccacac aaaggaaaag ggcctttccg 900

tcctcagccg tcgcttcatg tgactccacg gagtaccggg cgccgtccag gcacctcgat 960

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gagtttcccc acactgagtg ggtggagact gaagttaggc cagcttggca cttgatgtaa 1080

ttctccttgg aatttgccct ttttgagttt ggatcttggt tcattctcaa gcctcagaca 1140

gtggttcaaa gtttttttct tccatttcag gtgtcgtga 1179

<210> 7
<211> 8
<212> DNA
<213> Artificial Sequence

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

<400> 7
gtttaaac 8

<210> 8
<211> 581
<212> DNA
<213> Artificial Sequence

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

<400> 8
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ttaaatgtta ataaaacaaa atggtggggc aatcatttac atttttaggg atatgtaatt 120

actagttcag gtgtattgcc acaagacaaa catgttaaga aactttcccg ttatttacgc 180

tctgttcctg ttaatcaacc tctggattac aaaatttgtg aaagattgac tgatattctt 240

aactatgttg ctccttttac gctgtgtgga tatgctgctt tatagcctct gtatctagct 300

attgcttccc gtacggcttt cgttttctcc tccttgtata aatcctggtt gctgtctctt 360

ttagaggagt tgtggcccgt tgtccgtcaa cgtggcgtgg tgtgctctgt gtttgctgac 420

gcaaccccca ctggctgggg cattgccacc acctgtcaac tcctttctgg gactttcgct 480

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ggggctaggt tgctgggcac tgataattcc gtggtgttgt c 581

<210> 9
<211> 225
<212> DNA
<213> Artificial Sequence

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

polynucleotide

<400> 9
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ggaaggtgcc actcccactg tcctttccta ataaaatgag gaaattgcat cgcattgtct 120

gagtaggtgt cattctattc tgggggggtgg ggtggggcag gacagcaagg gggaggattg 180

ggaagacaat agcaggcatg ctggggatgc ggtgggctct atggc 225

<210> 10
<211> 213
<212> DNA
<213> Artificial Sequence

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

<400> 10
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tttgtgaaat ttgtgatgct attgctttat ttgtaaccat tataagctgc aataaacaag 120

ttaacaacaa caattgcatt cattttatgt ttcaggttca gggggaggtg tgggaggttt 180

tttaaagcaa gtaaaacctc tacaaatgtg gta 213

<210> 11
<211> 1386
<212> DNA
<213> Artificial Sequence

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

<400> 11
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ggctacctgc tgagcgccga gtgcaccgtg ttcctggacc acgagaacgc caacaagatc 120

ctgaaccgcc ccaagcgcta caacagcggc aagctggagg agttcgtgca gggcaacctg 180

gagcgcgagt gcatggagga gaagtgcagc ttcgaggagg cccgcgaggt gttcgagaac 240

accgagcgca ccaccgagtt ctggaagcag tacgtggacg gcgaccagtg cgagagcaac 300

ccctgcctga acggcggcag ctgcaaggac gacatcaaca gctacgagtg ctggtgcccc 360

ttcggcttcg agggcaagaa ctgcgagctg gacgtgacct gcaacatcaa gaacggccgc 420

tgcgagcagt tctgcaagaa cagcgccgac aacaaggtgg tgtgcagctg caccgagggc 480

taccgcctgg ccgagaacca gaagagctgc gagcccgccg tgcccttccc ctgcggcagg 540

gtgagcgtga gccagaccag caagctgacc cgcgccgagg ccgtgttccc cgacgtggac 600

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ttcaacgact tcacccgcgt ggtgggcggc gaggacgcca agcccggcca gttcccctgg 720

caggtggtgc tgaacggcaa ggtggacgcc ttctgcggcg gcagcatcgt gaacgagaag 780

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tacaccaaca tcttcctgaa gttcggcagc ggctacgtga gcggctgggg ccgcgtgttc 1080

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gagggcggca gggacagctg ccagggcgac agcggcggcc cccacgtgac cgaggtggag 1260

ggcaccagct tcctgaccgg catcatcagc tggggcgagg agtgcgccat gaagggcaag 1320

tacggcatct acaccaaggt gagccgctac gtgaactgga tcaaggagaa gaccaagctg 1380

acctaa 1386

<210> 12
<211> 1386
<212> DNA
<213> Artificial Sequence

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

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ggctacctgc tgagcgccga gtgcaccgtg ttcctggacc acgagaacgc caacaagatc 120

ctgaaccgcc ccaagcgcta caacagcggc aagctggagg agttcgtgca gggcaacctg 180

gagcgcgagt gcatggagga gaagtgcagc ttcgaggagg cccgcgaggt gttcgagaac 240

accgagcgca ccaccgagtt ctggaagcag tacgtggacg gcgaccagtg cgagagcaac 300

ccctgcctga acggcggcag ctgcaaggac gacatcaaca gctacgagtg ctggtgcccc 360

ttcggcttcg agggcaagaa ctgcgagctg gacgtgacct gcaacatcaa gaacggccgc 420

tgcgagcagt tctgcaagaa cagcgccgac aacaaggtgg tgtgcagctg caccgagggc 480

taccgcctgg ccgagaacca gaagagctgc gagcccgccg tgcccttccc ctgcggcagg 540

gtgagcgtga gccagaccag caagctgacc cgcgccgagg ccgtgttccc cgacgtggac 600

tacgtgaaca gcaccgaggc cgagaccatc ctggacaaca tcacccagag cacccagagc 660

ttcaacgact tcacccgcgt ggtgggcggc gaggacgcca agcccggcca gttcccctgg 720

caggtggtgc tgaacggcaa ggtggacgcc ttctgcggcg gcagcatcgt gaacgagaag 780

tggatcgtga ccgccgccca ctgcgtggag accggcgtga agatcaccgt ggtggccggc 840

gagcacaaca tcgaggagac cgagcacacc gagcagaagc gcaacgtgat ccgcatcatc 900

ccccaccaca actacaacgc cgccatcaac aagtacaacc acgacatcgc cctgctggag 960

ctggacgagc ccctggtgct gaacagctac gtgaccccca tctgcatcgc cgacaaggag 1020

tacaccaaca tcttcctgaa gttcggcagc ggctacgtga gcggctgggg ccgcgtgttc 1080

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acctaa 1386

<210> 13
<211> 1876
<212> DNA
<213> Artificial Sequence

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

<400> 13

cgcagccacc atggcggggt tttacgagat tgtgattaag gtccccagcg accttgacgg 60

gcatctgccc ggcatttctg acagctttgt gaactgggtg gccgagaagg aatgggagtt 120

gccgccagat tctgacatgg atctgaatct gattgagcag gcacccctga ccgtggccga 180

gaagctgcag cgcgactttc tgacggaatg gcgccgtgtg agtaaggccc cggaggccct 240

tttctttgtg caatttgaga agggagagag ctacttccac atgcacgtgc tcgtggaaac 300

caccggggtg aaatccatgg ttttgggacg tttcctgagt cagattcgcg aaaaactgat 360

tcagagaatt taccgcggga tcgagccgac tttgccaaac tggttcgcgg tcacaaagac 420

cagaaatggc gccggaggcg ggaacaaggt ggtggatgag tgctacatcc ccaattactt 480

gctccccaaa acccagcctg agctccagtg ggcgtggact aatatggaac agtatttaag 540

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gcagacgcag gagcagaaca aagagaatca gaatcccaat tctgatgcgc cggtgatcag 660

atcaaaaact tcagccaggt acatggagct ggtcgggtgg ctcgtggaca aggggattac 720

ctcggagaag cagtggatcc aggaggacca ggcctcatac atctccttca atgcggcctc 780

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gatttataaa attttggaac taaacgggta cgatccccaa tatgcggctt ccgtctttct 960

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taccgggaag accaacatcg cggaggccat agcccacact gtgcccttct acgggtgcgt 1080

aaactggacc aatgagaact ttcccttcaa cgactgtgtc gacaagatgg tgatctggtg 1140

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ccagcagccg ttgcaagacc ggatgttcaa atttgaactc acccgccgtc tggatcatga 1380

ctttgggaag gtcaccaagc aggaagtcaa agacttttc cggtgggcaa aggatcacgt 1440

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gtcagacgcg gaagcttcga tcaactacgc agacaggtac caaaacaaat gttctcgtca 1620

cgtgggcatg aatctgatgc tgtttccctg cagacaatgc gagagaatga atcagaattc 1680

aaatatctgc ttcactcacg gacagaaaga ctgtttagag tgctttcccg tgtcagaatc 1740

tcaacccgtt tctgtcgtca aaaaggcgta tcagaaactg tgctacattc atcatatcat 1800

gggaaaggtg ccagacgctt gcactgcctg cgatctggtc aatgtggatt tggatgactg 1860

catctttgaa caataa 1876

<210> 14
<211> 1191
<212> DNA
<213> Artificial Sequence

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

<400> 14
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tggcaccttt cccatgatat gatgaatgta gcacagtttc tgatacgcct ttttgacgac 120

agaaacgggt tgagattctg acacgggaaa gcactctaaa cagtctttct gtccgtgagt 180

gaagcagata tttgaattct gattcattct ctcgcattgt ctgcagggaa acagcatcag 240

attcatgccc acgtgacgag aacatttgtt ttggtagcgg tctgcgtagt tgatcgaagc 300

ttccgcgtct gacgtcgatg gctgcgcaac tgactcgcgc acccgtttgg gctcacttat 360

atctgcgtca ctgggggcgg gtcttttctt ggctccaccc tttttgacgt agaattcatg 420

ctccacctca accacgtgat cctttgccca ccggaaaaag tctttgactt cctgcttggt 480

gaccttccca aagtcatgat ccagacggcg ggtgagttca aatttgaaca tccggtcttg 540

caacggctgc tggtgttcga aggtcgttga gttcccgtca atcacggcgc acatgttggt 600

gttggaggtg acgatcacgg gagtcgggtc tatctgggcc gaggacttgc atttctggtc 660

cacgcgcacc ttgcttcctc cgagaatggc tttggccgac tccacgacct tggcggtcat 720

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attggtccag tttacgcacc cgtagaaggg cacagtgtgg gctatggcct ccgcgatgtt 840

ggtcttcccg gtagttgcag gcccaaacag ccagatggtg ttcctcttgc cgaacttttt 900

cgtggcccat cccagaaaga cggaagccgc atattgggga tcgtacccgt ttagttccaa 960

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ctgcttctcc gaggtaatcc ccttgtccac gagccacccg accagctcca t 1191

<210> 15
<211> 141
<212> DNA
<213> Artificial Sequence

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

<400> 15
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cgccatccgg ttggtataaa tagacgttca tgttggtttt tgtttcagtt gcaagttggc 120

tgcggcgcgc gcagcacctt t 141

<210> 16
<211> 556
<212> DNA
<213> Artificial Sequence

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

<400> 16
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tgaccttgga gctggggcag aggtcagaga cctctctggg cccatgccac ctccaacatc 120

cactcgaccc cttggaattt cggtggagag gagcagaggt tgtcctggcg tggtttaggt 180

agtgtgagag gggaatgact cctttcggta agtgcagtgg aagctgtaca ctgcccaggc 240

aaagcgtccg ggcagcgtag gcgggcgact cagatcccag ccagtggact tagcccctgt 300

ttgctcctcc gataactggg gtgaccttgg ttaatattca ccagcagcct cccccgttgc 360

ccctctggat ccactgctta aatacggacg aggacactcg agggccctgt ctcctcagct 420

tcaggcacca ccactgacct gggacagtga atccggacat cgattctaag gtaaatataa 480

aatttttaag tgtataattt gttaaactac tgattctaat tgtttctctc ttttagattc 540

caacctttgg aactga 556

<210> 17
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 17
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 18

<400> 18
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<210> 19

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<400> 43
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<210> 44

<400> 44
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<210> 45
<211> 6
<212> DNA
<213> Artificial Sequence

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

<400> 45
ggttga 6

<210> 46
<211> 4
<212> DNA
<213> Artificial Sequence

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

<400> 46
agtt 4

<210> 47
<211> 6
<212> DNA
<213> Artificial Sequence

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

<400> 47
ggttgg 6

<210> 48
<211> 6
<212> DNA
<213> Artificial Sequence

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

<400> 48
agttgg 6

<210> 49
<211> 6
<212> DNA
<213> Artificial Sequence

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

<400> 49
agttga 6

<210> 50
<211> 6
<212> DNA
<213> Artificial Sequence

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

<400> 50
rrttrr 6

<210> 51
<211> 141
<212> DNA
<213> Artificial Sequence

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

<400> 51
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcaaag cccgggcgtc 60

gggcgacctt tggtcgcccg gcctcagtga gcgagcgagc gcgcagagag ggagtggcca 120

actccatcac taggggttcc t 141

<210> 52
<211> 130
<212> DNA
<213> Artificial Sequence

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

<400> 52
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcgtcg ggcgaccttt 60

ggtcgcccgg cctcagtgag cgagcgagcg cgcagagagg gagtggccaa ctccatcact 120

aggggttcct 130

<210> 53
<211> 3123
<212> DNA
<213> Artificial Sequence

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

<400> 53
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cgggcgcctc agtgagcgag cgagcgcgca gagagggagt ggccaactcc atcactaggg 120

gttcctgaac agagaaacag gagaatatgg gccaaacagg atatctgtgg taagcagttc 180

ctgccccggc tcagggccaa gaacagttgg aacagcagaa tatgggccaa acaggatatc 240

tgtggtaagc agttcctgcc ccggctcagg gccaagaaca gatggtcccc agatgcggtc 300

ccgccctcag cagtttctag agaaccatca gatgtttcca gggtgcccca aggacctgaa 360

atgaccctgt gccttatttg aactaaccaa tcagttcgct tctcgcttct gttcgcgcgc 420

ttctgctccc cgagctctat ataagcagag ctcgtttagt gaaccgtcag atcgcctgga 480

gacgccatcc acgctgtttt gacttccata gaaggccgcc accatggaag acgccaaaaa 540

cataaagaaa ggcccggcgc cattctatcc gctggaagat ggaaccgctg gagagcaact 600

gcataaggct atgaagagat acgccctggt tcctggaaca attgctttta cagatgcaca 660

tatcgaggtg gacatcactt acgctgagta cttcgaaatg tccgttcggt tggcagaagc 720

tatgaaacga tatgggctga atacaaatca cagaatcgtc gtatgcagtg aaaactctct 780

tcaattcttt atgccggtgt tgggcgcgtt atttatcgga gttgcagttg cgcccgcgaa 840

cgacatttat aatgaacgtg aattgctcaa cagtatgggc atttcgcagc ctaccgtggt 900

gttcgtttcc aaaaaggggt tgcaaaaaat tttgaacgtg caaaaaaagc tcccaatcat 960

ccaaaaaatt attatcatgg attctaaaac ggattaccag ggatttcagt cgatgtacac 1020

gttcgtcaca tctcatctac ctcccggttt taatgaatac gattttgtgc cagagtcctt 1080

cgatagggac aagacaattg cactgatcat gaactcctct ggatctactg gtctgcctaa 1140

aggtgtcgct ctgcctcata gaactgcctg cgtgagattc tcgcatgcca gagatcctat 1200

ttttggcaat caaatcattc cggatactgc gattttaagt gttgttccat tccatcacgg 1260

ttttggaatg tttactacac tcggatattt gatatgtgga tttcgagtcg tcttaatgta 1320

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gctggtgcca accctattct ccttcttcgc caaaagcact ctgattgaca aatacgattt 1440

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ggttgccaag aggttccatc tgccaggtat caggcaagga tatgggctca ctgagactac 1560

atcagctatt ctgattacac ccgaggggga tgataaaccg ggcgcggtcg gtaaagttgt 1620

tccatttttt gaagcgaagg ttgtggatct ggataccggg aaaacgctgg gcgttaatca 1680

aagaggcgaa ctgtgtgtga gaggtcctat gattatgtcc ggttatgtaa acaatccgga 1740

agcgaccaac gccttgattg acaaggatgg atggctacat tctggagaca tagcttactg 1800

ggacgaagac gaacacttct tcatcgttga ccgcctgaag tctctgatta agtacaaagg 1860

ctatcaggtg gctcccgctg aattggaatc catcttgctc caacacccca acatcttcga 1920

cgcaggtgtc gcaggtcttc ccgacgatga cgccggtgaa cttcccgccg ccgttgttgt 1980

tttggagcac ggaaagacga tgacggaaaa agagatcgtg gattacgtcg ccagtcaagt 2040

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taccggaaaa ctcgacgcaa gaaaaatcag agagatcctc ataaaggcca agaagggcgg 2160

aaagatcgcc gtgtaagagc atcttaccgc catttattcc catatttgtt ctgtttttct 2220

tgatttgggt atacatttaa atgttaataa aacaaaatgg tggggcaatc atttacattt 2280

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tgcccgctgc tggacagggg ctaggttgct gggcactgat aattccgtgg tgttgtctgt 2760

gccttctagt tgccagccat ctgttgtttg cccctccccc gtgccttcct tgaccctgga 2820

aggtgccact cccactgtcc tttcctaata aaatgaggaa attgcatcgc attgtctgag 2880

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agttggccac tccctctctg cgcgctcgct cgctcactga ggccgggcga ccaaaggtcg 3060

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agg 3123

<210> 54
<211> 3117
<212> DNA
<213> Artificial Sequence

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

<400> 54
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gggcgacctt tggtcgcccg gcctcagtga gcgagcgagc gcgcagagag ggagtggcca 120

actccatcac taggggttcc tgaacagaga aacaggagaa tatgggccaa acaggatatc 180

tgtggtaagc agttcctgcc ccggctcagg gccaagaaca gttggaacag cagaatatgg 240

gccaaacagg atatctgtgg taagcagttc ctgccccggc tcagggccaa gaacagatgg 300

tccccagatg cggtcccgcc ctcagcagtt tctagagaac catcagatgt ttccagggtg 360

ccccaaggac ctgaaatgac cctgtgcctt atttgaacta accaatcagt tcgcttctcg 420

cttctgttcg cgcgcttctg ctccccgagc tctatataag cagagctcgt ttagtgaacc 480

gtcagatcgc ctggagacgc catccacgct gttttgactt ccatagaagg ccgccaccat 540

ggaagacgcc aaaaacataa agaaaggccc ggcgccattc tatccgctgg aagatggaac 600

cgctggagag caactgcata aggctatgaa gagatacgcc ctggttcctg gaacaattgc 660

ttttacagat gcacatatcg aggtggacat cacttacgct gagtacttcg aaatgtccgt 720

tcggttggca gaagctatga aacgatatgg gctgaataca aatcacagaa tcgtcgtatg 780

cagtgaaaac tctcttcaat tctttatgcc ggtgttgggc gcgttattta tcggagttgc 840

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gcagcctacc gtggtgttcg tttccaaaaa ggggttgcaa aaaattttga acgtgcaaaa 960

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tcagtcgatg tacacgttcg tcacatctca tctacctccc ggttttaatg aatacgattt 1080

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tactggtctg cctaaaggtg tcgctctgcc tcatagaact gcctgcgtga gattctcgca 1200

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ggaagtcggg gaagcggttg ccaagaggtt ccatctgcca ggtatcaggc aaggatatgg 1560

gctcactgag actacatcag ctattctgat tacacccgag ggggatgata aaccgggcgc 1620

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gattaagtac aaaggctatc aggtggctcc cgctgaattg gaatccatct tgctccaaca 1920

ccccaacatc ttcgacgcag gtgtcgcagg tcttcccgac gatgacgccg gtgaacttcc 1980

cgccgccgtt gttgttttgg agcacggaaa gacgatgacg gaaaaagaga tcgtggatta 2040

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acatgttaag aaactttccc gttatttacg ctctgttcct gttaatcaac ctctggatta 2400

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cccgggaaac ccgggcgtgc gcctcagtga gcgagcgagc gcgcagctgc ctgcagg 3117

<210> 55
<211> 2841
<212> DNA
<213> Artificial Sequence

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

<400> 55
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cgggcgcctc agtgagcgag cgagcgcgca gagagggagt ggccaactcc atcactaggg 120

gttcctgaac agagaaacag gagaatatgg gccaaacagg atatctgtgg taagcagttc 180

ctgccccggc tcagggccaa gaacagttgg aacagcagaa tatgggccaa acaggatatc 240

tgtggtaagc agttcctgcc ccggctcagg gccaagaaca gatggtcccc agatgcggtc 300

ccgccctcag cagtttctag agaaccatca gatgtttcca gggtgcccca aggacctgaa 360

atgaccctgt gccttatttg aactaaccaa tcagttcgct tctcgcttct gttcgcgcgc 420

ttctgctccc cgagctctat ataagcagag ctcgtttagt gaaccgtcag atcgcctgga 480

gacgccatcc acgctgtttt gacttccata gaaggccgcc accatgatca tggccgagag 540

ccctggcctg atcaccatct gcctgctggg ctacctgctg agcgccgagt gcaccgtgtt 600

cctggaccac gagaacgcca acaagatcct gaaccggccc aagagataca acagcggcaa 660

gctggaggag ttcgtgcagg gcaacctgga gagggagtgc atggaggaga agtgcagctt 720

cgaggaggcc agggaagtgt tcgagaacac cgagcggacc accgagttct ggaagcagta 780

cgtggacggc gaccagtgcg agagcaaccc ttgcctgaac ggcggcagct gcaaggacga 840

catcaacagc tacgagtgct ggtgcccttt cggcttcgag ggcaagaact gcgagctgga 900

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caaagtggtg tgtagctgca ccgagggcta cagactggcc gagaaccaga agagctgcga 1020

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cggcgtgaag atcaccgtgg tggccggcga acacaatatc gaggagaccg agcacaccga 1380

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gacccccatc tgcatcgccg acaaggagta caccaacatc ttcctgaagt tcggcagcgg 1560

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gggcgaggag tgcgccatga agggcaagta cggcatctac accaaagtga gccggtacgt 1860

gaactggatc aaggagaaaa ccaagctgac ctgagagcat cttaccgcca tttattccca 1920

tatttgttct gtttttcttg atttgggtat acatttaaat gttaataaaa caaaatggtg 1980

gggcaatcat ttacattttt agggatatgt aattactagt tcaggtgtat tgccacaaga 2040

caaacatgtt aagaaacttt cccgttattt acgctctgtt cctgttaatc aacctctgga 2100

ttacaaaatt tgtgaaagat tgactgatat tcttaactat gttgctcctt ttacgctgtg 2160

tggatatgct gctttatagc ctctgtatct agctattgct tcccgtacgg ctttcgtttt 2220

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gagcgcgcag ctgcctgcag g 2841

<210> 56
<211> 2835
<212> DNA

<213> Artificial Sequence

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

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gggcgacctt tggtcgcccg gcctcagtga gcgagcgagc gcgcagagag ggagtggcca 120

actccatcac taggggttcc tgaacagaga aacaggagaa tatgggccaa acaggatatc 180

tgtggtaagc agttcctgcc ccggctcagg gccaagaaca gttggaacag cagaatatgg 240

gccaaacagg atatctgtgg taagcagttc ctgccccggc tcagggccaa gaacagatgg 300

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atacaacagc ggcaagctgg aggagttcgt gcagggcaac ctggagaggg agtgcatgga 720

ggagaagtgc agcttcgagg aggccaggga agtgttcgag aacaccgagc ggaccaccga 780

gttctggaag cagtacgtgg acggcgacca gtgcgagagc aacccttgcc tgaacggcgg 840

cagctgcaag gacgacatca acagctacga gtgctggtgc cctttcggct tcgagggcaa 900

gaactgcgag ctggacgtga cctgcaacat caagaacggc cgctgcgagc agttctgcaa 960

gaacagcgcc gacaacaaag tggtgtgtag ctgcaccgag ggctacagac tggccgagaa 1020

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agttgtgggc ggcgaggacg ccaagcccgg ccagttcccc tggcaggtgg tgctgaacgg 1260

caaagtggat gccttctgcg gcggcagcat cgtgaacgag aagtggatcg tgacagccgc 1320

ccactgcgtg gagaccggcg tgaagatcac cgtggtggcc ggcgaacaca atatcgagga 1380

gaccgagcac accgagcaga agcggaacgt catccggatt atcccccacc acaactacaa 1440

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polynucleotide

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polynucleotide

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polynucleotide

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agcgagcgcg cagctgcctg cagg 3624

<210> 61
<211> 4257
<212> DNA
<213> Artificial Sequence

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

<400> 61
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actccatcac taggggttcc ttgtagttaa tgattaaccc gccatgctac ttatctacgt 180

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gcgcgctcgc tcgctcactg aggccgcccg ggcgtcgggc gacctttggt cgcccggcct 4200

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<210> 62
<211> 2510
<212> DNA
<213> Artificial Sequence

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

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actccatcac taggggttcc ttgtagttaa tgattaaccc gccatgctac ttatctacgt 180

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cgacgcccgg gcggcctcag tgagcgagcg agcgcgcagc tgcctgcagg 2510

<210> 63
<211> 126
<212> DNA
<213> Artificial Sequence

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

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cgggcgcctc agtgagcgag cgagcgcgca gagagggagt ggccaactcc atcactaggg 120

gttcct 126

<210> 64
<211> 120
<212> DNA
<213> Artificial Sequence

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

<400> 64
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgcccggga aacccgggcg tgcgcctcag tgagcgagcg agcgcgcagc tgcctgcagg 120

<210> 65
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 65
gcgcgctcgc tcgctcactg aggccgcccg ggcgtcgggc gacctttggt cgcccggcct 60

cagtgagcga gcgagcgcgc 80

<210> 66
<211> 141
<212> DNA

<213> Artificial Sequence

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

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cgccatccgg ttggtataaa tagacgttca tgttggtttt tgtttcagtt gcaagttggc 120

tgcggcgcgc gcagcacctt t 141

<210> 67
<211> 1876
<212> DNA
<213> Artificial Sequence

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

<400> 67
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gccgccagat tctgacatgg atctgaatct gattgagcag gcacccctga ccgtggccga 180

gaagctgcag cgcgactttc tgacggaatg gcgccgtgtg agtaaggccc cggaggccct 240

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caccggggtg aaatccatgg ttttgggacg tttcctgagt cagattcgcg aaaaactgat 360

tcagagaatt taccgcggga tcgagccgac tttgccaaac tggttcgcgg tcacaaagac 420

cagaaatggc gccggaggcg ggaacaaggt ggtggatgag tgctacatcc ccaattactt 480

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catctttgaa caataa 1876

<210> 68
<211> 129
<212> DNA
<213> Artificial Sequence

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

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tcgggcgcg 129

<210> 69
<211> 1203
<212> DNA
<213> Artificial Sequence

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

<400> 69
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ctggagctca acggctacga ccctcaatac gctgcctcag tgttcttggg ttgggccacc 300

aagaaattcg gcaagagaaa cactatctgg ctgttcggcc ccgctaccac tggaaagaca 360

aacatcgcag aagcgattgc tcacacggtg ccattctacg gctgcgtcaa ctggacaaac 420

gagaacttcc cgttcaacga ctgtgtcgat aagatggtta tctggtggga ggaaggaaag 480

atgacggcca aagtggtcga aagcgccaag gcaattctgg gtggctctaa agtgcgcgtc 540

gaccagaagt gcaaatcttc agctcaaatc gatcctaccc ccgttattgt gacatcaaac 600

acgaacatgt gtgccgtgat cgacggaaac agtacaacgt tcgaacacca gcaacctctc 660

caggatcgta tgttcaagtt cgagctcacc cgccgtttgg accatgattt cggcaaggtc 720

actaaacaag aggttaagga cttcttccgc tgggctaaag atcacgttgt ggaggttgaa 780

catgagttct acgtcaagaa aggaggtgct aagaaacgtc cagccccgtc ggacgcagat 840

atctccgaac ctaagagggt gagagagtcg gtcgcacagc caagcacttc tgacgcagaa 900

gcttccatta actacgcaga taggtaccaa aacaagtgca gcagacacgt gggtatgaac 960

ttgatgctgt tcccatgccg ccagtgtgag cgtatgaacc aaaactctaa catctgtttc 1020

acacatggcc agaaggactg cctcgaatgt ttccctgtgt cagagagtca gcccgtctca 1080

gtcgttaaga aagcttacca aaagttgtgc tacatccacc atattatggg taaagtccct 1140

gatgcctgta ccgcttgtga tctggtcaac gtggatttgg acgactgtat tttcgagcaa 1200

taa 1203

<210> 70
<211> 388
<212> DNA
<213> Artificial Sequence

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

<400> 70
gaacagagaa acaggagaat atgggccaaa caggatatct gtggtaagca gttcctgccc 60

cggctcaggg ccaagaacag ttggaacagc agaatatggg ccaaacagga tatctgtggt 120

aagcagttcc tgccccggct cagggccaag aacagatggt ccccagatgc ggtcccgccc 180

tcagcagttt ctagagaacc atcagatgtt tccagggtgc cccaaggacc tgaaatgacc 240

ctgtgcctta tttgaactaa ccaatcagtt cgcttctcgc ttctgttcgc gcgcttctgc 300

tccccgagct ctatataagc agagctcgtt tagtgaaccg tcagatcgcc tggagacgcc 360

atccacgctg ttttgacttc catagaag 388

<210> 71
<211> 1662
<212> DNA
<213> Artificial Sequence

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

<400> 71
gccgccacca tggaagacgc caaaaacata aagaaaggcc cggcgccatt ctatccgctg 60

gaagatggaa ccgctggaga gcaactgcat aaggctatga agagatacgc cctggttcct 120

ggaacaattg cttttacaga tgcacatatc gaggtggaca tcacttacgc tgagtacttc 180

gaaatgtccg ttcggttggc agaagctatg aaacgatatg ggctgaatac aaatcacaga 240

atcgtcgtat gcagtgaaaa ctctcttcaa ttctttatgc cggtgttggg cgcgttattt 300

atcggagttg cagttgcgcc cgcgaacgac atttataatg aacgtgaatt gctcaacagt 360

atgggcattt cgcagcctac cgtggtgttc gtttccaaaa aggggttgca aaaaattttg 420

aacgtgcaaa aaaagctccc aatcatccaa aaaattatta tcatggattc taaaacggat 480

taccagggat ttcagtcgat gtacacgttc gtcacatctc atctacctcc cggttttaat 540

gaatacgatt ttgtgccaga gtccttcgat agggacaaga caattgcact gatcatgaac 600

tcctctggat ctactggtct gcctaaaggt gtcgctctgc ctcatagaac tgcctgcgtg 660

agattctcgc atgccagaga tcctattttt ggcaatcaaa tcattccgga tactgcgatt 720

ttaagtgttg ttccattcca tcacggtttt ggaatgttta ctacactcgg atatttgata 780

tgtggatttc gagtcgtctt aatgtataga tttgaagaag agctgtttct gaggagcctt 840

caggattaca agattcaaag tgcgctgctg gtgccaaccc tattctcctt cttcgccaaa 900

agcactctga ttgacaaata cgatttatct aatttacacg aaattgcttc tggtggcgct 960

cccctctcta aggaagtcgg ggaagcggtt gccaagaggt tccatctgcc aggtatcagg 1020

caaggatatg ggctcactga gactacatca gctattctga ttacacccga gggggatgat 1080

aaaccgggcg cggtcggtaa agttgttcca ttttttgaag cgaaggttgt ggatctggat 1140

accgggaaaa cgctgggcgt taatcaaaga ggcgaactgt gtgtgagagg tcctatgatt 1200

atgtccggtt atgtaaacaa tccggaagcg accaacgcct tgattgacaa ggatggatgg 1260

ctacattctg gagacatagc ttactgggac gaagacgaac acttcttcat cgttgaccgc 1320

ctgaagtctc tgattaagta caaaggctat caggtggctc ccgctgaatt ggaatccatc 1380

ttgctccaac accccaacat cttcgacgca ggtgtcgcag gtcttcccga cgatgacgcc 1440

ggtgaacttc ccgccgccgt tgttgttttg gagcacggaa agacgatgac ggaaaaagag 1500

atcgtggatt acgtcgccag tcaagtaaca accgcgaaaa agttgcgcgg aggagttgtg 1560

tttgtggacg aagtaccgaa aggtcttacc ggaaaactcg acgcaagaaa aatcagagag 1620

atcctcataa aggccaagaa gggcggaaag atcgccgtgt aa 1662

<210> 72
<211> 581
<212> DNA
<213> Artificial Sequence

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

<400> 72
gagcatctta ccgccattta ttcccatatt tgttctgttt ttcttgattt gggtatacat 60

ttaaatgtta ataaaacaaa atggtggggc aatcatttac atttttaggg atatgtaatt 120

actagttcag gtgtattgcc acaagacaaa catgttaaga aactttcccg ttatttacgc 180

tctgttcctg ttaatcaacc tctggattac aaaatttgtg aaagattgac tgatattctt 240

aactatgttg ctccttttac gctgtgtgga tatgctgctt tatagcctct gtatctagct 300

attgcttccc gtacggcttt cgttttctcc tccttgtata aatcctggtt gctgtctctt 360

ttagaggagt tgtggcccgt tgtccgtcaa cgtggcgtgg tgtgctctgt gtttgctgac 420

gcaaccccca ctggctgggg cattgccacc acctgtcaac tcctttctgg gactttcgct 480

ttccccctcc cgatcgccac ggcagaactc atcgccgcct gccttgcccg ctgctggaca 540

ggggctaggt tgctgggcac tgataattcc gtggtgttgt c 581

<210> 73
<211> 225
<212> DNA
<213> Artificial Sequence

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

<400> 73
tgtgccttct agttgccagc catctgttgt ttgcccctcc cccgtgcctt ccttgaccct 60

ggaaggtgcc actcccactg tcctttccta ataaaatgag gaaattgcat cgcattgtct 120

gagtaggtgt cattctattc tgggggggtgg ggtggggcag gacagcaagg gggaggattg 180

ggaagacaat agcaggcatg ctggggatgc ggtgggctct atggc 225

<210> 74
<211> 1177
<212> DNA
<213> Artificial Sequence

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

<400> 74
ggctcagagg ctcagaggca cacaggagtt tctgggctca ccctgccccc ttccaacccc 60

tcagttccca tcctccagca gctgtttgtg tgctgcctct gaagtccaca ctgaacaaac 120

ttcagcctac tcatgtccct aaaatgggca aacattgcaa gcagcaaaca gcaaacacac 180

agccctccct gcctgctgac cttggagctg gggcagaggt cagagacctc tctgggccca 240

tgccacctcc aacatccact cgacccctg gaatttcggt ggagaggagc agaggttgtc 300

ctggcgtggt ttaggtagtg tgagagggtc cgggttcaaa accacttgct gggtggggag 360

tcgtcagtaa gtggctatgc cccgaccccg aagcctgttt ccccatctgt acaatggaaa 420

tgataaagac gcccatctga tagggttttt gtggcaaata aacatttggt ttttttgttt 480

tgttttgttt tgttttttga gatggaggtt tgctctgtcg cccaggctgg agtgcagtga 540

cacaatctca tctcaccaca accttcccct gcctcagcct cccaagtagc tgggattaca 600

agcatgtgcc accacacctg gctaattttc tatttttagt agagacgggt ttctccatgt 660

tggtcagcct cagcctccca agtaactggg attacaggcc tgtgccacca cacccggcta 720

atttttttcta tttttgacag ggacggggtt tcaccatgtt ggtcaggctg gtctagaggt 780

accggatctt gctaccagtg gaacagccac taaggattct gcagtgagag cagagggcca 840

gctaagtggt actctcccag agactgtctg actcacgcca ccccctccac cttggacaca 900

ggacgctgtg gtttctgagc caggtacaat gactcctttc ggtaagtgca gtggaagctg 960

tacactgccc aggcaaagcg tccgggcagc gtaggcgggc gactcagatc ccagccagtg 1020

gacttagccc ctgtttgctc ctccgataac tggggtgacc ttggttaata ttcaccagca 1080

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tcctcagctt caggcaccac cactgacctg ggacagt 1177

<210> 75

<400> 75
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<210> 76

<400> 76
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<210> 95

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<210> 96

<400> 96
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<210> 97
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 97
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 98
<211> 72
<212> DNA
<213> Artificial Sequence

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

<400> 98
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacggc ctcagtgagc 60

aagcgagcgc gc 72

<210> 99
<211> 122
<212> DNA
<213> Artificial Sequence

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

<400> 99
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacggcctc agtgagcgag cgagcgcgca gctgcctgca 120

gg 122

<210> 100
<211> 130
<212> DNA
<213> Artificial Sequence

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

<400> 100
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgcccgg gcggcctcag tgagcgagcg agcgcgcagc 120

tgcctgcagg 130

<210> 101
<211> 70
<212> DNA
<213> Artificial Sequence

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

<400> 101
gcgcgctcgc tcgctcactg aggccgcccg ggaaacccgg gcgtgcgcct cagtgagcga 60

gcgagcgcgc 70

<210> 102
<211> 70
<212> DNA
<213> Artificial Sequence

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

<400> 102
gcgcgctcgc tcgctcactg aggcgcacgc ccgggtttcc cgggcggcct cagtgagcga 60

gcgagcgcgc 70

<210> 103
<211> 72
<212> DNA
<213> Artificial Sequence

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

<400> 103
gcgcgctcgc tcgctcactg aggccgtcgg gcgacctttg gtcgcccggc ctcagtgagc 60

gagcgagcgc gc 72

<210> 104
<211> 72
<212> DNA
<213> Artificial Sequence

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

<400> 104
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacggc ctcagtgagc 60

gagcgagcgc gc 72

<210> 105
<211> 72
<212> DNA
<213> Artificial Sequence

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

<400> 105
gcgcgctcgc tcgctcactg aggccgcccg ggcaaagccc gggcgtcggc ctcagtgagc 60

gagcgagcgc gc 72

<210> 106
<211> 72
<212> DNA
<213> Artificial Sequence

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

<400> 106
gcgcgctcgc tcgctcactg aggccgacgc ccgggctttg cccgggcggc ctcagtgagc 60

gagcgagcgc gc 72

<210> 107
<211> 83
<212> DNA
<213> Artificial Sequence

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

<400> 107
gcgcgctcgc tcgctcactg aggccgcccg ggcaaagccc gggcgtcggg ctttgcccgg 60

cctcagtgag cgagcgagcg cgc 83

<210> 108
<211> 83
<212> DNA
<213> Artificial Sequence

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

<400> 108
gcgcgctcgc tcgctcactg aggccgggca aagcccgacg cccgggcttt gcccgggcgg 60

cctcagtgag cgagcgagcg cgc 83

<210> 109
<211> 77
<212> DNA
<213> Artificial Sequence

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

<400> 109
gcgcgctcgc tcgctcactg aggccgaaac gtcgggcgac ctttggtcgc ccggcctcag 60

tgagcgagcg agcgcgc 77

<210> 110
<211> 77
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 110
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgtt tcggcctcag 60

tgagcgagcg agcgcgc 77

<210> 111
<211> 51
<212> DNA
<213> Artificial Sequence

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

<400> 111
gcgcgctcgc tcgctcactg aggcaaagcc tcagtgagcg agcgagcgcg c 51

<210> 112
<211> 51
<212> DNA
<213> Artificial Sequence

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

<400> 112
gcgcgctcgc tcgctcactg aggctttgcc tcagtgagcg agcgagcgcg c 51

<210> 113
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 113
gcgcgctcgc tcgctcactg aggccgcccg ggcgtcgggc gacctttggt cgcccggcct 60

cagtgagcga gcgagcgcgc 80

<210> 114
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 114
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 115
<211> 79
<212> DNA
<213> Artificial Sequence

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

<400> 115
gcgcgctcgc tcgctcactg aggcgcccgg gcgtcgggcg acctttggtc gcccggcctc 60

agtgagcgag cgagcgcgc 79

<210> 116
<211> 79
<212> DNA
<213> Artificial Sequence

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

<400> 116
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggcgcctc 60

agtgagcgag cgagcgcgc 79

<210> 117
<211> 89
<212> DNA
<213> Artificial Sequence

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

<400> 117
gcgcgctcgc tcgctcactg aggccgcccg ggcaaagccc gggcgtcggg cgactttgtc 60

gcccggcctc agtgagcgag cgagcgcgc 89

<210> 118
<211> 89
<212> DNA
<213> Artificial Sequence

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

<400> 118
gcgcgctcgc tcgctcactg aggccgggcg acaaagtcgc ccgacgcccg ggctttgccc 60

gggcggcctc agtgagcgag cgagcgcgc 89

<210> 119
<211> 87
<212> DNA
<213> Artificial Sequence

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

<400> 119
gcgcgctcgc tcgctcactg aggccgcccg ggcaaagccc gggcgtcggg cgattttcgc 60

ccggcctcag tgagcgagcg agcgcgc 87

<210> 120
<211> 87
<212> DNA
<213> Artificial Sequence

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

<400> 120
gcgcgctcgc tcgctcactg aggccgggcg aaaatcgccc gacgcccggg ctttgcccgg 60

gcggcctcag tgagcgagcg agcgcgc 87

<210> 121
<211> 85
<212> DNA
<213> Artificial Sequence

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

<400> 121
gcgcgctcgc tcgctcactg aggccgcccg ggcaaagccc gggcgtcggg cgtttcgccc 60

ggcctcagtg agcgagcgag cgcgc 85

<210> 122
<211> 85
<212> DNA
<213> Artificial Sequence

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

<400> 122
gcgcgctcgc tcgctcactg aggccgggcg aaacgcccga cgcccgggct ttgcccgggc 60

ggcctcagtg agcgagcgag cgcgc 85

<210> 123
<211> 89
<212> DNA
<213> Artificial Sequence

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

<400> 123
gcgcgctcgc tcgctcactg aggccgcccg ggaaacccgg gcgtcgggcg acctttggtc 60

gcccggcctc agtgagcgag cgagcgcgc 89

<210> 124
<211> 89
<212> DNA
<213> Artificial Sequence

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

<400> 124
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggtttccc 60

gggcggcctc agtgagcgag cgagcgcgc 89

<210> 125
<211> 87
<212> DNA
<213> Artificial Sequence

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

<400> 125
gcgcgctcgc tcgctcactg aggccgcccg gaaaccgggc gtcgggcgac ctttggtcgc 60

ccggcctcag tgagcgagcg agcgcgc 87

<210> 126
<211> 87
<212> DNA
<213> Artificial Sequence

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

<400> 126
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cggtttccgg 60

gcggcctcag tgagcgagcg agcgcgc 87

<210> 127
<211> 85
<212> DNA
<213> Artificial Sequence

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

<400> 127
gcgcgctcgc tcgctcactg aggccgcccg aaacgggcgt cgggcgacct ttggtcgccc 60

ggcctcagtg agcgagcgag cgcgc 85

<210> 128
<211> 85
<212> DNA
<213> Artificial Sequence

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

<400> 128
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgtttcgggc 60

ggcctcagtg agcgagcgag cgcgc 85

<210> 129
<211> 83
<212> DNA
<213> Artificial Sequence

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

<400> 129
gcgcgctcgc tcgctcactg aggccgccca aagggcgtcg ggcgaccttt ggtcgcccgg 60

cctcagtgag cgagcgagcg cgc 83

<210> 130
<211> 83
<212> DNA
<213> Artificial Sequence

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

<400> 130
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc ctttgggcgg 60

cctcagtgag cgagcgagcg cgc 83

<210> 131
<211> 81
<212> DNA
<213> Artificial Sequence

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

<400> 131
gcgcgctcgc tcgctcactg aggccgccaa aggcgtcggg cgacctttgg tcgcccggcc 60

tcagtgagcg agcgagcgcg c 81

<210> 132
<211> 81
<212> DNA
<213> Artificial Sequence

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

<400> 132
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc tttggcggcc 60

tcagtgagcg agcgagcgcg c 81

<210> 133
<211> 79
<212> DNA
<213> Artificial Sequence

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

<400> 133
gcgcgctcgc tcgctcactg aggccgcaaa gcgtcgggcg acctttggtc gcccggcctc 60

agtgagcgag cgagcgcgc 79

<210> 134
<211> 79
<212> DNA
<213> Artificial Sequence

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

<400> 134
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgct ttgcggcctc 60

agtgagcgag cgagcgcgc 79

<210> 135
<211> 80
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 135
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagcc cgggctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 136
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 136
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 137
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 137
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgac cggtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 138
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 138
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgca cgtgcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 139
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 139
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 140
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 140
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagac cggtctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 141
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 141
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacaca cgtgtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 142
<211> 80
<212> DNA
<213> Artificial Sequence

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

oligonucleotide

<400> 142
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 143
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 143
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagca cgtgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 144
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 144
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaacc cgggttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 145
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 145
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagcc atggctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 146
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 146
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacaac cggttggcct 60

cagtgagcga gcgagcgcgc 80

<210> 147
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 147
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacacc atggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 148
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 148
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 149
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 149
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgca attgcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 150
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 150
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaaac cggtttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 151
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 151
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagaa cgttctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 152
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 152
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 153

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

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

<400> 153
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacaaa cgtttggcct 60

cagtgagcga gcgagcgcgc 80

<210> 154
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 154
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgaa atttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 155
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 155
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 156
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 156
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaacc atggttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 157
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 157
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacaac atgttggcct 60

cagtgagcga gcgagcgcgc 80

<210> 158
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 158
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagac atgtctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 159
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 159
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacaca attgtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 160
<211> 80

<212> DNA
<213> Artificial Sequence

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

<400> 160
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaaaa cgttttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 161
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 161
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaaac atgtttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 162
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 162
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaaca attgttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 163
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 163

gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaagaa atttctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 164
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 164
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacaaa attttggcct 60

cagtgagcga gcgagcgcgc 80

<210> 165
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 165
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgaaaaa atttttgcct 60

cagtgagcga gcgagcgcgc 80

<210> 166
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 166
gcgcgctcgc tcgctcgctg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cagcgagcga gcgagcgcgc 80

<210> 167
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 167
gcgcgctcgc tcgctcaatg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cattgagcga gcgagcgcgc 80

<210> 168
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 168
gcgcgctcgc tcgctcaccg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cggtgagcga gcgagcgcgc 80

<210> 169
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 169
gcgcgctcgc tcgctcacta aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 170
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 170
gcgcgctcgc tcgctcactg gggccgggcg accaaaggtc gcccgacgcc cgggcggccc 60

cagtgagcga gcgagcgcgc 80

<210> 171
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 171
gcgcgctcgc tcgctcactg aagccgggcg accaaaggtc gcccgacgcc cgggcggctt 60

cagtgagcga gcgagcgcgc 80

<210> 172
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 172
gcgcgctcgc tcgctcactg agaccgggcg accaaaggtc gcccgacgcc cgggcggtct 60

cagtgagcga gcgagcgcgc 80

<210> 173
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 173
gcgcgctcgc tcgctcgatg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 174
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 174
gcgcgctcgc tcgctcgcgg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

ccgcgagcga gcgagcgcgc 80

<210> 175
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 175
gcgcgctcgc tcgctcgcta aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 176
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 176
gcgcgctcgc tcgctcgctg gggccgggcg accaaaggtc gcccgacgcc cgggcggccc 60

cagcgagcga gcgagcgcgc 80

<210> 177
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 177
gcgcgctcgc tcgctcgctg aagccgggcg accaaaggtc gcccgacgcc cgggcggctt 60

cagcgagcga gcgagcgcgc 80

<210> 178
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 178
gcgcgctcgc tcgctcgctg agaccgggcg accaaaggtc gcccgacgcc cgggcggtct 60

cagcgagcga gcgagcgcgc 80

<210> 179
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 179
gcgcgctcgc tcgctcgagg aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

cctcgagcga gcgagcgcgc 80

<210> 180
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 180
gcgcgctcgc tcgctcgata aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

tatcgagcga gcgagcgcgc 80

<210> 181
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 181
gcgcgctcgc tcgctcgatg gggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 182
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 182
gcgcgctcgc tcgctcgatg aagccgggcg accaaaggtc gcccgacgcc cgggcggctt 60

catcgagcga gcgagcgcgc 80

<210> 183
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 183
gcgcgctcgc tcgctcgatg agaccgggcg accaaaggtc gcccgacgcc cgggcggtct 60

catcgagcga gcgagcgcgc 80

<210> 184
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 184
gcgcgctcgc tcgctcgaga aggccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

tctcgagcga gcgagcgcgc 80

<210> 185
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 185
gcgcgctcgc tcgctcgagg gggccgggcg accaaaggtc gcccgacgcc cgggcggccc 60

cctcgagcga gcgagcgcgc 80

<210> 186
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 186
gcgcgctcgc tcgctcgagg aagccgggcg accaaaggtc gcccgacgcc cgggcggctt 60

cctcgagcga gcgagcgcgc 80

<210> 187
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 187
gcgcgctcgc tcgctcgagg gggccgggcg accaaaggtc gcccgacgcc cgggcggccc 60

cctcgagcga gcgagcgcgc 80

<210> 188
<211> 80
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 188
gcgcgctcgc tcgctcgagg aagccgggcg accaaaggtc gcccgacgcc cgggcggctt 60

cctcgagcga gcgagcgcgc 80

<210> 189
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 189
gcgcgctcgc tcgctcgagg agaccgggcg accaaaggtc gcccgacgcc cgggcggtct 60

cctcgagcga gcgagcgcgc 80

<210> 190
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 190
gcgcgctcgc tcgctcgaga gggccgggcg accaaaggtc gcccgacgcc cgggcggccc 60

tctcgagcga gcgagcgcgc 80

<210> 191

<400> 191
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<400> 199
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<210> 200
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 200
gcgcgctcgc tcgctcgaga aagccgggcg accaaaggtc gcccgacgcc cgggcggctt 60

tctcgagcga gcgagcgcgc 80

<210> 201
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 201
gcgcgctcgc tcgctcgaga agaccgggcg accaaaggtc gcccgacgcc cgggcggcct 60

tctcgagcga gcgagcgcgc 80

<210> 202
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 202
gcgcgctcgc tcgctcgaga gagccgggcg accaaaggtc gcccgacgcc cgggcggctc 60

tctcgagcga gcgagcgcgc 80

<210> 203
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 203
gcgcgctcgc tcgctcgaga ggaccgggcg accaaaggtc gcccgacgcc cgggcggtcc 60

tctcgagcga gcgagcgcgc 80

<210> 204
<211> 80
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 204
gcgcgctcgc tcgctcgaga gaaccgggcg accaaaggtc gcccgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 205
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 205
gcgcgctcgc tcgctcaaga gaaccgggcg accaaaggtc gcccgacgcc cgggcggttc 60

tcttgagcga gcgagcgcgc 80

<210> 206
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 206
gcgcgctcgc tcgctcacga gaaccgggcg accaaaggtc gcccgacgcc cgggcggttc 60

tcgtgagcga gcgagcgcgc 80

<210> 207
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 207
gcgcgctcgc tcgctcacta gaaccgggcg accaaaggtc gcccgacgcc cgggcggttc 60

tagtgagcga gcgagcgcgc 80

<210> 208
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 208
gcgcgctcgc tcgctcactg gaaccgggcg accaaaggtc gcccgacgcc cgggcggttc 60

cagtgagcga gcgagcgcgc 80

<210> 209
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 209
gcgcgctcgc tcgctcactg aaaccgggcg accaaaggtc gcccgacgcc cgggcggttt 60

cagtgagcga gcgagcgcgc 80

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

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

<400> 210
gcgcgctcgc tcgctcgcgg gggccgggcg accaaaggtc gcccgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

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

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

oligonucleotide

<400> 211
gcgcgctcgc tcgctcaata aaaccgggcg accaaaggtc gcccgacgcc cgggcggttt 60

tattgagcga gcgagcgcgc 80

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

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

<400> 212
gcgcgctcgc tcgctcactg aggccaggcg accaaaggtc gcctgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

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

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

<400> 213
gcgcgctcgc tcgctcactg aggccgagcg accaaaggtc gctcgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 214
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 214
gcgcgctcgc tcgctcactg aggccggacg accaaaggtc gtccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 215
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 215
gcgcgctcgc tcgctcactg aggccgggag accaaaggtc tcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 216
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 216
gcgcgctcgc tcgctcactg aggccgggca accaaaggtt gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 217
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 217
gcgcgctcgc tcgctcactg aggccgggcg gccaaaggcc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 218
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 218
gcgcgctcgc tcgctcactg aggccgggcg aacaaagttc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 219
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 219
gcgcgctcgc tcgctcactg aggccgggcg acaaaatgtc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 220
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 220
gcgcgctcgc tcgctcactg aggccaagcg accaaaggtc gcttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 221
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 221
gcgcgctcgc tcgctcactg aggccaaacg accaaaggtc gtttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 222

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

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

<400> 222
gcgcgctcgc tcgctcactg aggccaaaag accaaaggtc ttttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 223
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 223
gcgcgctcgc tcgctcactg aggccaaaaa accaaaggtt ttttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 224
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 224
gcgcgctcgc tcgctcactg aggccaaaaa gccaaaggct ttttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 225
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 225
gcgcgctcgc tcgctcactg aggccaaaaa gacaaagtct ttttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 226
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 226
gcgcgctcgc tcgctcactg aggccaaaaa gaaaaattct ttttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 227
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 227
gcgcgctcgc tcgctcactg aggccaaaaa aaaaaatttt ttttgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 228
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 228
gcgcgctcgc tcgctcactg aggccgaaaa aaaaaatttt tttcgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 229
<211> 80

<212> DNA
<213> Artificial Sequence

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

<400> 229
gcgcgctcgc tcgctcactg aggccggaaa gaaaaattct ttccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 230
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 230
gcgcgctcgc tcgctcactg aggccgggaa gaaaaattct tcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 231
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 231
gcgcgctcgc tcgctcactg aggccgggca gaaaaattct gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 232
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 232

gcgcgctcgc tcgctcactg aggccgggcg gaaaaattcc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 233
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 233
gcgcgctcgc tcgctcactg aggccgggcg aaaaaatttc gcccgacgcc cgggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 234
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 234
gcgcgctcgc tcgctcactg aggccaggcg accaaaggtc gcctgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 235
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 235
gcgcgctcgc tcgctcactg aggccaggcg accaaaggtc gcctgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 236
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 236
gcgcgctcgc tcgctcactg aggccaggcg accaaaggtc gcctgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 237
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 237
gcgcgctcgc tcgctcactg aggccaggcg accaaaggtc gcctgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 238
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 238
gcgcgctcgc tcgctcactg aggccaggcg accaaaggtc gcctgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 239
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 239
gcgcgctcgc tcgctcactg aggccgggcg gccaaaggcc gcccgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 240
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 240
gcgcgctcgc tcgctcactg aggccgggcg gccaaaggcc gcccgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 241
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 241
gcgcgctcgc tcgctcactg aggccgggcg gccaaaggcc gcccgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 242
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 242
gcgcgctcgc tcgctcactg aggccgggcg gccaaaggcc gcccgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 243
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 243
gcgcgctcgc tcgctcactg aggccgggcg gccaaaggcc gcccgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 244
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 244
gcgcgctcgc tcgctcactg aggccgggcg acaaaatgtc gcccgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 245
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 245
gcgcgctcgc tcgctcactg aggccgggcg acaaaatgtc gcccgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 246
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 246
gcgcgctcgc tcgctcactg aggccgggcg acaaaatgtc gcccgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 247
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 247
gcgcgctcgc tcgctcactg aggccgggcg acaaaatgtc gcccgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 248
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 248
gcgcgctcgc tcgctcactg aggccgggcg acaaaatgtc gcccgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 249
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 249
gcgcgctcgc tcgctcactg aggccaaaag accaaaggtc ttttgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 250
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 250
gcgcgctcgc tcgctcactg aggccaaaag accaaaggtc ttttgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 251
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 251
gcgcgctcgc tcgctcactg aggccaaaag accaaaggtc ttttgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 252
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 252
gcgcgctcgc tcgctcactg aggccaaaag accaaaggtc ttttgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 253
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 253
gcgcgctcgc tcgctcactg aggccaaaag accaaaggtc ttttgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 254
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 254
gcgcgctcgc tcgctcactg aggccaaaaa aaaaaatttt ttttgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 255
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 255
gcgcgctcgc tcgctcactg aggccaaaaa aaaaaatttt ttttgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 256
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 256
gcgcgctcgc tcgctcactg aggccaaaaa aaaaaatttt ttttgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 257
<211> 80
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 257
gcgcgctcgc tcgctcactg aggccaaaaa aaaaaatttt ttttgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 258
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 258
gcgcgctcgc tcgctcactg aggccaaaaa aaaaaatttt ttttgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 259
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 259
gcgcgctcgc tcgctcactg aggccgggca gaaaaattct gcccgacacc cgggtggcct 60

cagtgagcga gcgagcgcgc 80

<210> 260
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 260
gcgcgctcgc tcgctcactg aggccgggca gaaaaattct gcccgacgcc atggcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 261
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 261
gcgcgctcgc tcgctcactg aggccgggca gaaaaattct gcccgacgac atgtcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 262
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 262
gcgcgctcgc tcgctcactg aggccgggca gaaaaattct gcccgacgaa cgttcggcct 60

cagtgagcga gcgagcgcgc 80

<210> 263
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 263
gcgcgctcgc tcgctcactg aggccgggca gaaaaattct gcccgaagca attgctgcct 60

cagtgagcga gcgagcgcgc 80

<210> 264
<211> 80
<212> DNA
<213> Artificial Sequence

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

oligonucleotide

<400> 264
gcgcgctcgc tcgctcacta aggccaggcg accaaaggtc gcctgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 265
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 265
gcgcgctcgc tcgctcacta aggccgggcg gccaaaggcc gcccgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 266
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 266
gcgcgctcgc tcgctcacta aggccgggcg acaaaatgtc gcccgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 267
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 267
gcgcgctcgc tcgctcacta aggccaaaag accaaaggtc ttttgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 268
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 268
gcgcgctcgc tcgctcacta aggccaaaaa aaaaaatttt ttttgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 269
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 269
gcgcgctcgc tcgctcacta aggccgggca gaaaaattct gcccgacgcc cgggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 270
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 270
gcgcgctcgc tcgctcgatg gggccaggcg accaaaggtc gcctgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 271
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 271
gcgcgctcgc tcgctcgatg gggccgggcg gccaaaggcc gcccgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 272
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 272
gcgcgctcgc tcgctcgatg gggccgggcg acaaaatgtc gcccgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 273
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 273
gcgcgctcgc tcgctcgatg gggccaaaag accaaaggtc ttttgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 274
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 274
gcgcgctcgc tcgctcgatg gggccaaaaa aaaaaatttt ttttgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 275

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

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

<400> 275
gcgcgctcgc tcgctcgatg gggccgggca gaaaaattct gcccgacgcc cgggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 276
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 276
gcgcgctcgc tcgctcgaga gaaccaggcg accaaaggtc gcctgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 277
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 277
gcgcgctcgc tcgctcgaga gaaccgggcg gccaaaggcc gcccgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 278
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 278
gcgcgctcgc tcgctcgaga gaaccgggcg acaaaatgtc gcccgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 279
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 279
gcgcgctcgc tcgctcgaga gaaccaaaag accaaaggtc ttttgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 280
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 280
gcgcgctcgc tcgctcgaga gaaccaaaaa aaaaaatttt ttttgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 281
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 281
gcgcgctcgc tcgctcgaga gaaccgggca gaaaaattct gcccgacgcc cgggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 282
<211> 80

<212> DNA
<213> Artificial Sequence

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

<400> 282
gcgcgctcgc tcgctcgcgg gggccaggcg accaaaggtc gcctgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 283
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 283
gcgcgctcgc tcgctcgcgg gggccgggcg gccaaaggcc gcccgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 284
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 284
gcgcgctcgc tcgctcgcgg gggccgggcg acaaaatgtc gcccgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 285
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 285

gcgcgctcgc tcgctcgcgg gggccaaaag accaaaggtc ttttgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 286
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 286
gcgcgctcgc tcgctcgcgg gggccaaaaa aaaaaatttt ttttgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 287
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 287
gcgcgctcgc tcgctcgcgg gggccgggca gaaaaattct gcccgacgcc cgggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 288
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 288
gcgcgctcgc tcgctcaata aaaccaggcg accaaaggtc gcctgacgcc cgggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 289
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 289
gcgcgctcgc tcgctcaata aaaccgggcg gccaaaggcc gcccgacgcc cgggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 290
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 290
gcgcgctcgc tcgctcaata aaaccgggcg acaaaatgtc gcccgacgcc cgggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 291
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 291
gcgcgctcgc tcgctcaata aaaccaaaag accaaaggtc ttttgacgcc cgggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 292
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 292
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tattgagcga gcgagcgcgc 80

<210> 293
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 293
gcgcgctcgc tcgctcaata aaaccgggca gaaaaattct gcccgacgcc cgggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 294
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 294
gcgcgctcgc tcgctcacta aggccgggcg accaaaggtc gcccgacacc cgggtggcct 60

tagtgagcga gcgagcgcgc 80

<210> 295
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 295
gcgcgctcgc tcgctcacta aggccgggcg accaaaggtc gcccgacgcc atggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 296
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 296
gcgcgctcgc tcgctcacta aggccgggcg accaaaggtc gcccgacgac atgtcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 297
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 297
gcgcgctcgc tcgctcacta aggccgggcg accaaaggtc gcccgacgaa cgttcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 298
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 298
gcgcgctcgc tcgctcacta aggccgggcg accaaaggtc gcccgaagca attgctgcct 60

tagtgagcga gcgagcgcgc 80

<210> 299
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 299
gcgcgctcgc tcgctcgatg gggccgggcg accaaaggtc gcccgacacc cgggtggcct 60

catcgagcga gcgagcgcgc 80

<210> 300
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 300
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catcgagcga gcgagcgcgc 80

<210> 301
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 301
gcgcgctcgc tcgctcgatg gggccgggcg accaaaggtc gcccgacgac atgtcggcct 60

catcgagcga gcgagcgcgc 80

<210> 302
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 302
gcgcgctcgc tcgctcgatg gggccgggcg accaaaggtc gcccgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 303
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 303
gcgcgctcgc tcgctcgatg gggccgggcg accaaaggtc gcccgaagca attgctgcct 60

catcgagcga gcgagcgcgc 80

<210> 304
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 304
gcgcgctcgc tcgctcgaga gaaccgggcg accaaaggtc gcccgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 305
<211> 80
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<213> Artificial Sequence

<220>
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oligonucleotide

<400> 305
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tctcgagcga gcgagcgcgc 80

<210> 306
<211> 80
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<213> Artificial Sequence

<220>
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oligonucleotide

<400> 306
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tctcgagcga gcgagcgcgc 80

<210> 307
<211> 80
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<213> Artificial Sequence

<220>
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oligonucleotide

<400> 307
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tctcgagcga gcgagcgcgc 80

<210> 308
<211> 80
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<213> Artificial Sequence

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oligonucleotide

<400> 308
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tctcgagcga gcgagcgcgc 80

<210> 309
<211> 80
<212> DNA
<213> Artificial Sequence

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oligonucleotide

<400> 309
gcgcgctcgc tcgctcgcgg gggccgggcg accaaaggtc gcccgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 310
<211> 80
<212> DNA
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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 310
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ccgcgagcga gcgagcgcgc 80

<210> 311
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 311
gcgcgctcgc tcgctcgcgg gggccgggcg accaaaggtc gcccgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 312
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 312
gcgcgctcgc tcgctcgcgg gggccgggcg accaaaggtc gcccgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 313
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 313
gcgcgctcgc tcgctcgcgg gggccgggcg accaaaggtc gcccgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 314
<211> 80
<212> DNA
<213> Artificial Sequence

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oligonucleotide

<400> 314
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tattgagcga gcgagcgcgc 80

<210> 315
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 315
gcgcgctcgc tcgctcaata aaaccgggcg accaaaggtc gcccgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 316
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 316
gcgcgctcgc tcgctcaata aaaccgggcg accaaaggtc gcccgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 317
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 317
gcgcgctcgc tcgctcaata aaaccgggcg accaaaggtc gcccgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 318
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 318
gcgcgctcgc tcgctcaata aaaccgggcg accaaaggtc gcccgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 319
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 319
gcgcgctcgc tcgctcacta aggccaggcg accaaaggtc gcctgacacc cgggtggcct 60

tagtgagcga gcgagcgcgc 80

<210> 320
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 320
gcgcgctcgc tcgctcacta aggccaggcg accaaaggtc gcctgacgcc atggcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 321
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 321
gcgcgctcgc tcgctcacta aggccaggcg accaaaggtc gcctgacgac atgtcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 322
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 322
gcgcgctcgc tcgctcacta aggccaggcg accaaaggtc gcctgacgaa cgttcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 323
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 323
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tagtgagcga gcgagcgcgc 80

<210> 324
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 324
gcgcgctcgc tcgctcacta aggccgggcg gccaaaggcc gcccgacacc cgggtggcct 60

tagtgagcga gcgagcgcgc 80

<210> 325
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 325
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tagtgagcga gcgagcgcgc 80

<210> 326
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 326
gcgcgctcgc tcgctcacta aggccgggcg gccaaaggcc gcccgacgac atgtcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 327
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 327
gcgcgctcgc tcgctcacta aggccgggcg gccaaaggcc gcccgacgaa cgttcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 328

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

<220>
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oligonucleotide

<400> 328
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tagtgagcga gcgagcgcgc 80

<210> 329
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 329
gcgcgctcgc tcgctcacta aggccgggcg acaaaatgtc gcccgacacc cgggtggcct 60

tagtgagcga gcgagcgcgc 80

<210> 330
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 330
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tagtgagcga gcgagcgcgc 80

<210> 331
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 331
gcgcgctcgc tcgctcacta aggccgggcg acaaaatgtc gcccgacgac atgtcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 332
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 332
gcgcgctcgc tcgctcacta aggccgggcg acaaaatgtc gcccgacgaa cgttcggcct 60

tagtgagcga gcgagcgcgc 80

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

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

<400> 333
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tagtgagcga gcgagcgcgc 80

<210> 334
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 334
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tagtgagcga gcgagcgcgc 80

<210> 335
<211> 80

<212> DNA
<213> Artificial Sequence

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

<400> 335
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tagtgagcga gcgagcgcgc 80

<210> 336
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 336
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tagtgagcga gcgagcgcgc 80

<210> 337
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 337
gcgcgctcgc tcgctcacta aggccaaaag accaaaggtc ttttgacgaa cgttcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 338
<211> 80
<212> DNA
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<220>
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oligonucleotide

<400> 338

gcgcgctcgc tcgctcacta aggccaaaag accaaaggtc ttttgaagca attgctgcct 60

tagtgagcga gcgagcgcgc 80

<210> 339
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 339
gcgcgctcgc tcgctcacta aggccaaaaa aaaaaatttt ttttgacacc cgggtggcct 60

tagtgagcga gcgagcgcgc 80

<210> 340
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 340
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tagtgagcga gcgagcgcgc 80

<210> 341
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 341
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tagtgagcga gcgagcgcgc 80

<210> 342
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 342
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tagtgagcga gcgagcgcgc 80

<210> 343
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 343
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tagtgagcga gcgagcgcgc 80

<210> 344
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 344
gcgcgctcgc tcgctcacta aggccgggca gaaaaattct gcccgacacc cgggtggcct 60

tagtgagcga gcgagcgcgc 80

<210> 345
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 345
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tagtgagcga gcgagcgcgc 80

<210> 346
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 346
gcgcgctcgc tcgctcacta aggccgggca gaaaaattct gcccgacgac atgtcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 347
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 347
gcgcgctcgc tcgctcacta aggccgggca gaaaaattct gcccgacgaa cgttcggcct 60

tagtgagcga gcgagcgcgc 80

<210> 348
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 348
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tagtgagcga gcgagcgcgc 80

<210> 349
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 349
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catcgagcga gcgagcgcgc 80

<210> 350
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 350
gcgcgctcgc tcgctcgatg gggccaggcg accaaaggtc gcctgacgcc atggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 351
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 351
gcgcgctcgc tcgctcgatg gggccaggcg accaaaggtc gcctgacgac atgtcggcct 60

catcgagcga gcgagcgcgc 80

<210> 352
<211> 80
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<220>
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oligonucleotide

<400> 352
gcgcgctcgc tcgctcgatg gggccaggcg accaaaggtc gcctgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 353
<211> 80
<212> DNA
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<220>
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oligonucleotide

<400> 353
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catcgagcga gcgagcgcgc 80

<210> 354
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 354
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catcgagcga gcgagcgcgc 80

<210> 355
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 355
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catcgagcga gcgagcgcgc 80

<210> 356
<211> 80
<212> DNA
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<220>
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oligonucleotide

<400> 356
gcgcgctcgc tcgctcgatg gggccgggcg gccaaaggcc gcccgacgac atgtcggcct 60

catcgagcga gcgagcgcgc 80

<210> 357
<211> 80
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<220>
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oligonucleotide

<400> 357
gcgcgctcgc tcgctcgatg gggccgggcg gccaaaggcc gcccgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 358
<211> 80
<212> DNA
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oligonucleotide

<400> 358
gcgcgctcgc tcgctcgatg gggccgggcg gccaaaggcc gcccgaagca attgctgcct 60

catcgagcga gcgagcgcgc 80

<210> 359
<211> 80
<212> DNA
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<220>
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oligonucleotide

<400> 359
gcgcgctcgc tcgctcgatg gggccgggcg acaaaatgtc gcccgacacc cgggtggcct 60

catcgagcga gcgagcgcgc 80

<210> 360
<211> 80
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 360
gcgcgctcgc tcgctcgatg gggccgggcg acaaaatgtc gcccgacgcc atggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 361
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 361
gcgcgctcgc tcgctcgatg gggccgggcg acaaaatgtc gcccgacgac atgtcggcct 60

catcgagcga gcgagcgcgc 80

<210> 362
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 362
gcgcgctcgc tcgctcgatg gggccgggcg acaaaatgtc gcccgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 363
<211> 80
<212> DNA
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<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 363
gcgcgctcgc tcgctcgatg gggccgggcg acaaaatgtc gcccgaagca attgctgcct 60

catcgagcga gcgagcgcgc 80

<210> 364
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 364
gcgcgctcgc tcgctcgatg gggccaaaag accaaaggtc ttttgacacc cgggtggcct 60

catcgagcga gcgagcgcgc 80

<210> 365
<211> 80
<212> DNA
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<220>
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oligonucleotide

<400> 365
gcgcgctcgc tcgctcgatg gggccaaaag accaaaggtc ttttgacgcc atggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 366
<211> 80
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oligonucleotide

<400> 366
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catcgagcga gcgagcgcgc 80

<210> 367
<211> 80
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oligonucleotide

<400> 367
gcgcgctcgc tcgctcgatg gggccaaaag accaaaggtc ttttgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 368
<211> 80
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oligonucleotide

<400> 368
gcgcgctcgc tcgctcgatg gggccaaaag accaaaggtc ttttgaagca attgctgcct 60

catcgagcga gcgagcgcgc 80

<210> 369
<211> 80
<212> DNA
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oligonucleotide

<400> 369
gcgcgctcgc tcgctcgatg gggccaaaaa aaaaaatttt ttttgacacc cgggtggcct 60

catcgagcga gcgagcgcgc 80

<210> 370
<211> 80
<212> DNA
<213> Artificial Sequence

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oligonucleotide

<400> 370
gcgcgctcgc tcgctcgatg gggccaaaaa aaaaaatttt ttttgacgcc atggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 371
<211> 80
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<220>
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oligonucleotide

<400> 371
gcgcgctcgc tcgctcgatg gggccaaaaa aaaaaatttt ttttgacgac atgtcggcct 60

catcgagcga gcgagcgcgc 80

<210> 372
<211> 80
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oligonucleotide

<400> 372
gcgcgctcgc tcgctcgatg gggccaaaaa aaaaaatttt ttttgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 373
<211> 80
<212> DNA
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<220>
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oligonucleotide

<400> 373
gcgcgctcgc tcgctcgatg gggccaaaaa aaaaaatttt ttttgaagca attgctgcct 60

catcgagcga gcgagcgcgc 80

<210> 374
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
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oligonucleotide

<400> 374
gcgcgctcgc tcgctcgatg gggccgggca gaaaaattct gcccgacacc cgggtggcct 60

catcgagcga gcgagcgcgc 80

<210> 375
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 375
gcgcgctcgc tcgctcgatg gggccgggca gaaaaattct gcccgacgcc atggcggcct 60

catcgagcga gcgagcgcgc 80

<210> 376
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 376
gcgcgctcgc tcgctcgatg gggccgggca gaaaaattct gcccgacgac atgtcggcct 60

catcgagcga gcgagcgcgc 80

<210> 377
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 377
gcgcgctcgc tcgctcgatg gggccgggca gaaaaattct gcccgacgaa cgttcggcct 60

catcgagcga gcgagcgcgc 80

<210> 378
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 378
gcgcgctcgc tcgctcgatg gggccgggca gaaaaattct gcccgaagca attgctgcct 60

catcgagcga gcgagcgcgc 80

<210> 379
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 379
gcgcgctcgc tcgctcgaga gaaccaggcg accaaaggtc gcctgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 380
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 380
gcgcgctcgc tcgctcgaga gaaccaggcg accaaaggtc gcctgacgcc atggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 381

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

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

<400> 381
gcgcgctcgc tcgctcgaga gaaccaggcg accaaaggtc gcctgacgac atgtcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 382
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 382
gcgcgctcgc tcgctcgaga gaaccaggcg accaaaggtc gcctgacgaa cgttcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 383
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 383
gcgcgctcgc tcgctcgaga gaaccaggcg accaaaggtc gcctgaagca attgctgttc 60

tctcgagcga gcgagcgcgc 80

<210> 384
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 384
gcgcgctcgc tcgctcgaga gaaccgggcg gccaaaggcc gcccgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 385
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 385
gcgcgctcgc tcgctcgaga gaaccgggcg gccaaaggcc gcccgacgcc atggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 386
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 386
gcgcgctcgc tcgctcgaga gaaccgggcg gccaaaggcc gcccgacgac atgtcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 387
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 387
gcgcgctcgc tcgctcgaga gaaccgggcg gccaaaggcc gcccgacgaa cgttcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 388
<211> 80

<212> DNA
<213> Artificial Sequence

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

<400> 388
gcgcgctcgc tcgctcgaga gaaccgggcg gccaaaggcc gcccgaagca attgctgttc 60

tctcgagcga gcgagcgcgc 80

<210> 389
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 389
gcgcgctcgc tcgctcgaga gaaccgggcg acaaaatgtc gcccgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 390
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 390
gcgcgctcgc tcgctcgaga gaaccgggcg acaaaatgtc gcccgacgcc atggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 391
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 391

gcgcgctcgc tcgctcgaga gaaccgggcg acaaaatgtc gcccgacgac atgtcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 392
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 392
gcgcgctcgc tcgctcgaga gaaccgggcg acaaaatgtc gcccgacgaa cgttcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 393
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 393
gcgcgctcgc tcgctcgaga gaaccgggcg acaaaatgtc gcccgaagca attgctgttc 60

tctcgagcga gcgagcgcgc 80

<210> 394
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 394
gcgcgctcgc tcgctcgaga gaaccaaaag accaaaggtc ttttgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 395
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 395
gcgcgctcgc tcgctcgaga gaaccaaaag accaaaggtc ttttgacgcc atggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 396
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 396
gcgcgctcgc tcgctcgaga gaaccaaaag accaaaggtc ttttgacgac atgtcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 397
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 397
gcgcgctcgc tcgctcgaga gaaccaaaag accaaaggtc ttttgacgaa cgttcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 398
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 398
gcgcgctcgc tcgctcgaga gaaccaaaag accaaaggtc ttttgaagca attgctgttc 60

tctcgagcga gcgagcgcgc 80

<210> 399
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 399
gcgcgctcgc tcgctcgaga gaaccaaaaa aaaaaatttt ttttgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 400
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 400
gcgcgctcgc tcgctcgaga gaaccaaaaa aaaaaatttt ttttgacgcc atggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 401
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 401
gcgcgctcgc tcgctcgaga gaaccaaaaa aaaaaatttt ttttgacgac atgtcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 402
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 402
gcgcgctcgc tcgctcgaga gaaccaaaaa aaaaaatttt ttttgacgaa cgttcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 403
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 403
gcgcgctcgc tcgctcgaga gaaccaaaaa aaaaaatttt ttttgaagca attgctgttc 60

tctcgagcga gcgagcgcgc 80

<210> 404
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 404
gcgcgctcgc tcgctcgaga gaaccgggca gaaaaattct gcccgacacc cgggtggttc 60

tctcgagcga gcgagcgcgc 80

<210> 405
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 405
gcgcgctcgc tcgctcgaga gaaccgggca gaaaaattct gcccgacgcc atggcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 406
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 406
gcgcgctcgc tcgctcgaga gaaccgggca gaaaaattct gcccgacgac atgtcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 407
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 407
gcgcgctcgc tcgctcgaga gaaccgggca gaaaaattct gcccgacgaa cgttcggttc 60

tctcgagcga gcgagcgcgc 80

<210> 408
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 408
gcgcgctcgc tcgctcgaga gaaccgggca gaaaaattct gcccgaagca attgctgttc 60

tctcgagcga gcgagcgcgc 80

<210> 409
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 409
gcgcgctcgc tcgctcgcgg gggccaggcg accaaaggtc gcctgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 410
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 410
gcgcgctcgc tcgctcgcgg gggccaggcg accaaaggtc gcctgacgcc atggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 411
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 411
gcgcgctcgc tcgctcgcgg gggccaggcg accaaaggtc gcctgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 412
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 412
gcgcgctcgc tcgctcgcgg gggccaggcg accaaaggtc gcctgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 413
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 413
gcgcgctcgc tcgctcgcgg gggccaggcg accaaaggtc gcctgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 414
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 414
gcgcgctcgc tcgctcgcgg gggccgggcg gccaaaggcc gcccgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 415
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 415
gcgcgctcgc tcgctcgcgg gggccgggcg gccaaaggcc gcccgacgcc atggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 416
<211> 80
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 416
gcgcgctcgc tcgctcgcgg gggccgggcg gccaaaggcc gcccgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 417
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 417
gcgcgctcgc tcgctcgcgg gggccgggcg gccaaaggcc gcccgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 418
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 418
gcgcgctcgc tcgctcgcgg gggccgggcg gccaaaggcc gcccgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 419
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 419
gcgcgctcgc tcgctcgcgg gggccgggcg acaaaatgtc gcccgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 420
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 420
gcgcgctcgc tcgctcgcgg gggccgggcg acaaaatgtc gcccgacgcc atggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 421
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 421
gcgcgctcgc tcgctcgcgg gggccgggcg acaaaatgtc gcccgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 422
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 422
gcgcgctcgc tcgctcgcgg gggccgggcg acaaaatgtc gcccgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 423
<211> 80
<212> DNA
<213> Artificial Sequence

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

oligonucleotide

<400> 423
gcgcgctcgc tcgctcgcgg gggccgggcg acaaaatgtc gcccgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 424
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 424
gcgcgctcgc tcgctcgcgg gggccaaaag accaaaggtc ttttgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 425
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 425
gcgcgctcgc tcgctcgcgg gggccaaaag accaaaggtc ttttgacgcc atggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 426
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 426
gcgcgctcgc tcgctcgcgg gggccaaaag accaaaggtc ttttgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 427
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 427
gcgcgctcgc tcgctcgcgg gggccaaaag accaaaggtc ttttgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 428
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 428
gcgcgctcgc tcgctcgcgg gggccaaaag accaaaggtc ttttgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 429
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 429
gcgcgctcgc tcgctcgcgg gggccaaaaa aaaaaatttt ttttgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 430
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 430
gcgcgctcgc tcgctcgcgg gggccaaaaa aaaaaatttt ttttgacgcc atggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 431
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 431
gcgcgctcgc tcgctcgcgg gggccaaaaa aaaaaatttt ttttgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 432
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 432
gcgcgctcgc tcgctcgcgg gggccaaaaa aaaaaatttt ttttgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 433
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 433
gcgcgctcgc tcgctcgcgg gggccaaaaa aaaaaatttt ttttgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 434

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

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

<400> 434
gcgcgctcgc tcgctcgcgg gggccgggca gaaaaattct gcccgacacc cgggtggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 435
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 435
gcgcgctcgc tcgctcgcgg gggccgggca gaaaaattct gcccgacgcc atggcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 436
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 436
gcgcgctcgc tcgctcgcgg gggccgggca gaaaaattct gcccgacgac atgtcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 437
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 437
gcgcgctcgc tcgctcgcgg gggccgggca gaaaaattct gcccgacgaa cgttcggccc 60

ccgcgagcga gcgagcgcgc 80

<210> 438
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 438
gcgcgctcgc tcgctcgcgg gggccgggca gaaaaattct gcccgaagca attgctgccc 60

ccgcgagcga gcgagcgcgc 80

<210> 439
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 439
gcgcgctcgc tcgctcaata aaaccaggcg accaaaggtc gcctgacacc cgggtggttt 60

tattgagcga gcgagcgcgc 80

<210> 440
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 440
gcgcgctcgc tcgctcaata aaaccaggcg accaaaggtc gcctgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 441
<211> 80

<212> DNA
<213> Artificial Sequence

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

<400> 441
gcgcgctcgc tcgctcaata aaaccaggcg accaaaggtc gcctgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 442
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 442
gcgcgctcgc tcgctcaata aaaccaggcg accaaaggtc gcctgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 443
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 443
gcgcgctcgc tcgctcaata aaaccaggcg accaaaggtc gcctgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 444
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 444

gcgcgctcgc tcgctcaata aaaccgggcg gccaaaggcc gcccgacacc cgggtggttt 60

tattgagcga gcgagcgcgc 80

<210> 445
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 445
gcgcgctcgc tcgctcaata aaaccgggcg gccaaaggcc gcccgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

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

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

<400> 446
gcgcgctcgc tcgctcaata aaaccgggcg gccaaaggcc gcccgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 447
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 447
gcgcgctcgc tcgctcaata aaaccgggcg gccaaaggcc gcccgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 448
<211> 80
<212> DNA

<213> Artificial Sequence

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

<400> 448
gcgcgctcgc tcgctcaata aaaccgggcg gccaaaggcc gcccgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 449
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 449
gcgcgctcgc tcgctcaata aaaccgggcg acaaaatgtc gcccgacacc cgggtggttt 60

tattgagcga gcgagcgcgc 80

<210> 450
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 450
gcgcgctcgc tcgctcaata aaaccgggcg acaaaatgtc gcccgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 451
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 451
gcgcgctcgc tcgctcaata aaaccgggcg acaaaatgtc gcccgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 452
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 452
gcgcgctcgc tcgctcaata aaaccgggcg acaaaatgtc gcccgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 453
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 453
gcgcgctcgc tcgctcaata aaaccgggcg acaaaatgtc gcccgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 454
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 454
gcgcgctcgc tcgctcaata aaaccaaaag accaaaggtc ttttgacacc cgggtggttt 60

tattgagcga gcgagcgcgc 80

<210> 455
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 455
gcgcgctcgc tcgctcaata aaaccaaaag accaaaggtc ttttgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 456
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 456
gcgcgctcgc tcgctcaata aaaccaaaag accaaaggtc ttttgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 457
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 457
gcgcgctcgc tcgctcaata aaaccaaaag accaaaggtc ttttgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 458
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 458
gcgcgctcgc tcgctcaata aaaccaaaag accaaaggtc ttttgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 459
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 459
gcgcgctcgc tcgctcaata aaaccaaaaa aaaaaatttt ttttgacacc cgggtggttt 60

tattgagcga gcgagcgcgc 80

<210> 460
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 460
gcgcgctcgc tcgctcaata aaaccaaaaa aaaaaatttt ttttgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 461
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 461
gcgcgctcgc tcgctcaata aaaccaaaaa aaaaaatttt ttttgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 462
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 462
gcgcgctcgc tcgctcaata aaaccaaaaa aaaaaatttt ttttgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 463
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 463
gcgcgctcgc tcgctcaata aaaccaaaaa aaaaaatttt ttttgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 464
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 464
gcgcgctcgc tcgctcaata aaaccgggca gaaaaattct gcccgacacc cgggtggttt 60

tattgagcga gcgagcgcgc 80

<210> 465
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 465
gcgcgctcgc tcgctcaata aaaccgggca gaaaaattct gcccgacgcc atggcggttt 60

tattgagcga gcgagcgcgc 80

<210> 466
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 466
gcgcgctcgc tcgctcaata aaaccgggca gaaaaattct gcccgacgac atgtcggttt 60

tattgagcga gcgagcgcgc 80

<210> 467
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 467
gcgcgctcgc tcgctcaata aaaccgggca gaaaaattct gcccgacgaa cgttcggttt 60

tattgagcga gcgagcgcgc 80

<210> 468
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 468
gcgcgctcgc tcgctcaata aaaccgggca gaaaaattct gcccgaagca attgctgttt 60

tattgagcga gcgagcgcgc 80

<210> 469
<211> 120
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polynucleotide

<400> 469
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

cgcacgcccg ggtttcccgg gcggcctcag tgagcgagcg agcgcgcagc tgcctgcagg 120

<210> 470
<211> 122
<212> DNA
<213> Artificial Sequence

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

<400> 470
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgacgcccg ggctttgccc gggcggcctc agtgagcgag cgagcgcgca gctgcctgca 120

gg 122

<210> 471
<211> 129
<212> DNA
<213> Artificial Sequence

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

<400> 471
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgcccgg gcgcctcagt gagcgagcga gcgcgcagct 120

gcctgcagg 129

<210> 472
<211> 101
<212> DNA
<213> Artificial Sequence

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

<400> 472

aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ctttgcctca gtgagcgagc gagcgcgcag ctgcctgcag g 101

<210> 473
<211> 139
<212> DNA
<213> Artificial Sequence

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

<400> 473
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgaca aagtcgcccg acgcccgggc tttgcccggg cggcctcagt gagcgagcga 120

gcgcgcagct gcctgcagg 139

<210> 474
<211> 137
<212> DNA
<213> Artificial Sequence

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

<400> 474
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgaaa atcgcccgac gcccgggctt tgcccgggcg gcctcagtga gcgagcgagc 120

gcgcagctgc ctgcagg 137

<210> 475
<211> 135
<212> DNA
<213> Artificial Sequence

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

<400> 475
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgaaa cgcccgacgc ccgggctttg cccgggcggc ctcagtgagc gagcgagcgc 120

gcagctgcct gcagg 135

<210> 476
<211> 133
<212> DNA
<213> Artificial Sequence

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

<400> 476
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcaaag cccgacgccc gggctttgcc cgggcggcct cagtgagcga gcgagcgcgc 120

agctgcctgc agg 133

<210> 477
<211> 139
<212> DNA
<213> Artificial Sequence

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

<400> 477
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgcccgg gtttcccggg cggcctcagt gagcgagcga 120

gcgcgcagct gcctgcagg 139

<210> 478
<211> 137
<212> DNA
<213> Artificial Sequence

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

<400> 478
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgcccgg tttccgggcg gcctcagtga gcgagcgagc 120

gcgcagctgc ctgcagg 137

<210> 479
<211> 135
<212> DNA
<213> Artificial Sequence

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

<400> 479
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgcccgt ttcgggcggc ctcagtgagc gagcgagcgc 120

gcagctgcct gcagg 135

<210> 480
<211> 133
<212> DNA
<213> Artificial Sequence

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

<400> 480
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgccctt tgggcggcct cagtgagcga gcgagcgcgc 120

agctgcctgc agg 133

<210> 481
<211> 131
<212> DNA
<213> Artificial Sequence

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

<400> 481
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgccttt ggcggcctca gtgagcgagc gagcgcgcag 120

ctgcctgcag g 131

<210> 482

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

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

<400> 482
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgctttg cggcctcagt gagcgagcga gcgcgcagct 120

gcctgcagg 129

<210> 483
<211> 127
<212> DNA
<213> Artificial Sequence

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

<400> 483
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgggcgacc aaaggtcgcc cgacgtttcg gcctcagtga gcgagcgagc gcgcagctgc 120

ctgcagg 127

<210> 484
<211> 120
<212> DNA
<213> Artificial Sequence

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

<400> 484
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggaaacc cgggcgtgcg 60

cctcagtgag cgagcgagcg cgcagagagg gagtggccaa ctccatcact aggggttcct 120

<210> 485
<211> 122
<212> DNA
<213> Artificial Sequence

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

<400> 485
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgt cgggcgacct ttggtcgccc 60

ggcctcagtg agcgagcgag cgcgcagaga gggagtggcc aactccatca ctaggggttc 120

ct 122

<210> 486
<211> 122
<212> DNA
<213> Artificial Sequence

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

<400> 486
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcaaag cccgggcgtc 60

ggcctcagtg agcgagcgag cgcgcagaga gggagtggcc aactccatca ctaggggttc 120

ct 122

<210> 487
<211> 129
<212> DNA
<213> Artificial Sequence

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

<400> 487
cctgcaggca gctgcgcgct cgctcgctca ctgaggcgcc cgggcgtcgg gcgacctttg 60

gtcgcccggc ctcagtgagc gagcgagcgc gcagagaggg agtggccaac tccatcacta 120

ggggttcct 129

<210> 488
<211> 101
<212> DNA
<213> Artificial Sequence

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

polynucleotide

<400> 488
cctgcaggca gctgcgcgct cgctcgctca ctgaggcaaa gcctcagtga gcgagcgagc 60

gcgcagagag ggagtggcca actccatcac taggggttcc t 101

<210> 489
<211> 139
<212> DNA
<213> Artificial Sequence

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

<400> 489
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcaaag cccgggcgtc 60

gggcgacttt gtcgcccggc ctcagtgagc gagcgagcgc gcagagaggg agtggccaac 120

tccatcacta ggggttcct 139

<210> 490
<211> 137
<212> DNA
<213> Artificial Sequence

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

<400> 490
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcaaag cccgggcgtc 60

gggcgatttt cgcccggcct cagtgagcga gcgagcgcgc agagagggag tggccaactc 120

catcactagg ggttcct 137

<210> 491
<211> 135
<212> DNA
<213> Artificial Sequence

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

<400> 491
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcaaag cccgggcgtc 60

gggcgtttcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg gccaactcca 120

tcactagggg ttcct 135

<210> 492
<211> 133
<212> DNA
<213> Artificial Sequence

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

<400> 492
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggcaaag cccgggcgtc 60

gggctttgcc cggcctcagt gagcgagcga gcgcgcagag agggagtggc caactccatc 120

actaggggtt cct 133

<210> 493
<211> 139
<212> DNA
<213> Artificial Sequence

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

<400> 493
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgggaaacc cgggcgtcgg 60

gcgacctttg gtcgcccggc ctcagtgagc gagcgagcgc gcagagaggg agtggccaac 120

tccatcacta ggggttcct 139

<210> 494
<211> 137
<212> DNA
<213> Artificial Sequence

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

<400> 494
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccggaaaccg ggcgtcgggc 60

gacctttggt cgcccggcct cagtgagcga gcgagcgcgc agagagggag tggccaactc 120

catcactagg ggttcct 137

<210> 495
<211> 135
<212> DNA
<213> Artificial Sequence

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

<400> 495
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccgaaacggg cgtcgggcga 60

cctttggtcg cccggcctca gtgagcgagc gagcgcgcag agagggagtg gccaactcca 120

tcactagggg ttcct 135

<210> 496
<211> 133
<212> DNA
<213> Artificial Sequence

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

<400> 496
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc ccaaagggcg tcgggcgacc 60

tttggtcgcc cggcctcagt gagcgagcga gcgcgcagag agggagtggc caactccatc 120

actaggggtt cct 133

<210> 497
<211> 131
<212> DNA
<213> Artificial Sequence

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

<400> 497
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc caaaggcgtc gggcgacctt 60

tggtcgcccg gcctcagtga gcgagcgagc gcgcagagag ggagtggcca actccatcac 120

taggggttcc t 131

<210> 498
<211> 129
<212> DNA
<213> Artificial Sequence

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

<400> 498
cctgcaggca gctgcgcgct cgctcgctca ctgaggccgc aaagcgtcgg gcgacctttg 60

gtcgcccggc ctcagtgagc gagcgagcgc gcagagaggg agtggccaac tccatcacta 120

ggggttcct 129

<210> 499
<211> 127
<212> DNA
<213> Artificial Sequence

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

<400> 499
cctgcaggca gctgcgcgct cgctcgctca ctgaggccga aacgtcgggc gacctttggt 60

cgcccggcct cagtgagcga gcgagcgcgc agagagggag tggccaactc catcactagg 120

ggttcct 127

<210> 500
<211> 43
<212> DNA
<213> Artificial Sequence

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

<400> 500
gcccgctggt ttccagcggg ctgcgggccc gaaacgggcc cgc 43

<210> 501
<211> 28
<212> DNA
<213> Artificial Sequence

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

<400> 501
cgggcccgtg cgggcccaaa gggcccgc 28

<210> 502
<211> 28
<212> DNA
<213> Artificial Sequence

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

<400> 502
gcccgggcac gcccgggttt cccgggcg 28

<210> 503
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 503
cgtgcgggcc caaagggccc gc 22

<210> 504
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 504
cgggcgacca aaggtcgccc g 21

<210> 505
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 505
cgcccgggct ttgcccgggc 20

<210> 506
<211> 42
<212> DNA
<213> Artificial Sequence

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

<400> 506
cgggcgacca aaggtcgccc gacgcccggg ctttgcccgg gc 42

<210> 507
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 507
cgggcgacca aaggtcgccc g 21

<210> 508
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 508
cgcccgggct ttgcccgggc 20

<210> 509
<211> 34
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 509
cgggcgacca aaggtcgccc gacgcccggg cggc 34

<210> 510
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 510
cgggcgacca aaggtcgccc g 21

<210> 511
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 511
cgcccgggct ttgcccgggc 20

<210> 512
<211> 30
<212> DNA
<213> Artificial Sequence

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

<400> 512
cggggcccga cgcccgggct ttgcccgggc 30

<210> 513
<211> 21
<212> DNA
<213> Artificial Sequence

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

oligonucleotide

<400> 513
cgggcgacca aaggtcgccc g 21

<210> 514
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 514
cgcccgggct ttgcccgggc 20

<210> 515
<211> 29
<212> DNA
<213> Artificial Sequence

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

<400> 515
cgggcccgac gcccgggctt tgcccgggc 29

<210> 516
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 516
cgggcgacca aaggtcgccc g 21

<210> 517
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 517
cgcccgggct ttgcccgggc 20

<210> 518
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 518
gcccgggcaa agcccgggcg 20

<210> 519
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 519
cgggcgacct ttggtcgccc g 21

<210> 520
<211> 42
<212> DNA
<213> Artificial Sequence

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

<400> 520
gcccgggcaa agcccgggcg tcgggcgacc tttggtcgcc cg 42

<210> 521
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 521
gcccgggcaa agcccgggcg 20

<210> 522
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 522
cgggcgacct ttggtcgccc g 21

<210> 523
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 523
gcccgggcaa agcccgggcg 20

<210> 524
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 524
cgggcgacct ttggtcgccc g 21

<210> 525
<211> 34
<212> DNA
<213> Artificial Sequence

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

<400> 525

gccgcccggg cgacgggcga cctttggtcg cccg 34

<210> 526
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 526
gcccgggcaa agcccgggcg 20

<210> 527
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 527
cgggcgacct ttggtcgccc g 21

<210> 528
<211> 31
<212> DNA
<213> Artificial Sequence

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

<400> 528
gcccgggcgt cgggcgacct ttggtcgccc g 31

<210> 529
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 529
cgggcgacct ttggtcgccc g 21

<210> 530

<400> 530
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<210> 531
<211> 16
<212> DNA
<213> Artificial Sequence

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

<400> 531
gcgcgctcgc tcgctc 16

<210> 532
<211> 8
<212> DNA
<213> Artificial Sequence

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

<400> 532
actgaggc 8

<210> 533

<400> 533
000

<210> 534

<400> 534
000

<210> 535
<211> 8
<212> DNA
<213> Artificial Sequence

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

oligonucleotide

<400> 535
gcctcagt 8

<210> 536
<211> 16
<212> DNA
<213> Artificial Sequence

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

<400> 536
gagcgagcga gcgcgc 16

<210> 537

<400> 537
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<210> 538
<211> 165
<212> DNA
<213> Artificial Sequence

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

<400> 538
aggaacccct agtgatggag ttggccactc cctctctgcg cgctcgctcg ctcactgagg 60

ccgcccgggc aaagcccggg cgtcgggcga cctttggtcg cccggcctca gtgagcgagc 120

gagcgcgcag agagggagtg gccaactcca tcactagggg ttcct 165

<210> 539
<211> 140
<212> DNA
<213> Artificial Sequence

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

<400> 539
cccctagtga tggagttggc cactccctct ctgcgcgctc gctcgctcac tgaggccgcc 60

cgggcaaagc ccgggcgtcg ggcgaccttt ggtcgcccgg cctcagtgag cgagcgagcg 120

cgcagagaga tcactagggg 140

<210> 540
<211> 91
<212> DNA
<213> Artificial Sequence

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

<400> 540
gcgcgctcgc tcgctcactg aggccgcccg ggcaaagccc gggcgtcggg cgacctttgg 60

tcgcccggcc tcagtgagcg agcgagcgcg c 91

<210> 541
<211> 91
<212> DNA
<213> Artificial Sequence

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

<400> 541
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgcc cgggctttgc 60

ccgggcggcc tcagtgagcg agcgagcgcg c 91

<210> 542
<211> 8
<212> DNA
<213> Artificial Sequence

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

<400> 542
ttaattaa 8

<210> 543
<211> 80
<212> DNA
<213> Artificial Sequence

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

<400> 543
cgcgcgagcg agcgagtgac tccggcccgc tggtttccag cgggctgcgg gcccgccgga 60

gtcactcgct cgctcgcgcg 80

<210> 544
<211> 52
<212> DNA
<213> Artificial Sequence

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

<400> 544
gcgcgctcgc tcgctcactg aggcctttgc ctcagtgagc gagcgagcgc gc 52

<210> 545
<211> 79
<212> DNA
<213> Artificial Sequence

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

<400> 545
gcgcgctcgc tcgctcactg aggcgcccgg gcgtcgggcg acctttggtc gcccggcctc 60

agtgagcgag cgagcgcgc 79

<210> 546
<211> 77
<212> DNA
<213> Artificial Sequence

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

<400> 546
gcgcgctcgc tcgctcactg aggccgggcg accaaaggtc gcccgacgtt tcggcctcag 60

tgagcgagcg agcgcgc 77

<210> 547
<211> 77
<212> DNA
<213> Artificial Sequence

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

<400> 547
gcgcgctcgc tcgctcactg aggccgaaac gtcgggcgac ctttggtcgc ccggcctcag 60

tgagcgagcg agcgcgc 77

<210> 548

<400> 548
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<210> 549

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<210> 558
<211> 312
<212> PRT
<213> Artificial Sequence

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

<400> 558
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
35 40 45

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

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
65 70 75 80

```
Asn Gly Tyr Glu Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
                85                  90                  95

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100                 105                 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
```

290 295 300

Asp Leu Ala Arg Gly Gln Pro Leu
305 310

<210> 559
<211> 312
<212> PRT
<213> Artificial Sequence

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

<400> 559
Met Glu Leu Val Gly Trp Leu Val Asp Lys Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
35 40 45

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Gln Gln
50 55 60

Pro Val Glu Asp Ile Ser Ser Asn Arg Ile Tyr Lys Ile Leu Glu Leu
65 70 75 80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
85 90 95

Thr Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

```
Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Lys Asp His Val Val Glu Val
                245                 250                 255

Glu His Glu Phe Tyr Val Lys Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270

Pro Ser Asp Ala Asp Ile Ser Glu Pro Lys Arg Val Arg Glu Ser Val
        275                 280                 285

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Ser Ile Asn Tyr Ala Asp
    290                 295                 300

Arg Leu Ala Arg Gly His Ser Leu
305                 310
```

<210> 560
<211> 311
<212> PRT
<213> Artificial Sequence

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

<400> 560
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1   5   10   15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20   25   30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
        35   40   45

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

Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
65   70   75   80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
                85   90   95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100   105   110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115   120   125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130   135   140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145   150   155   160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
            180   185   190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195   200   205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Glu Phe
210 215 220

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
225 230 235 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
245 250 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
260 265 270

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Glu Cys Thr Ser Leu
275 280 285

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
290 295 300

Leu Ala Arg Gly Gln Pro Phe
305 310

<210> 561
<211> 311
<212> PRT
<213> Artificial Sequence

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

<400> 561
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
35 40 45

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

```
Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
65                  70                  75                  80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
                85                  90                  95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100                 105                 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270
```

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Gln Cys Thr Ser Leu
        275   280   285

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
    290   295   300

Leu Ala Arg Gly Gln Pro Phe
305   310

<210> 562
<211> 311
<212> PRT
<213> Artificial Sequence

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

<400> 562
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1   5   10   15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20   25   30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
        35   40   45

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

Pro Pro Glu Asp Ile Ser Ser Asn Arg Ile Tyr Arg Ile Leu Glu Met
65   70   75   80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
                85   90   95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100   105   110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115   120   125

```
Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Lys Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Thr His Glu Phe Tyr Val Arg Lys Gly Gly Ala Arg Lys Arg Pro Ala
            260                 265                 270

Pro Asn Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Tyr Ala Asp
    290                 295                 300

Leu Ala Arg Gly Gln Pro Leu
305                 310
```

<210> 563
<211> 329
<212> PRT
<213> Artificial Sequence

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

<400> 563
Met Ala Leu Val Asn Trp Leu Val Glu His Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asn Gln Glu Ser Tyr Leu Ser Phe Asn Ser Thr
20 25 30

Gly Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys
35 40 45

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

Val Pro Glu Asp Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met
65 70 75 80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys
85 90 95

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

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

Cys Val Asp Lys Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn
145 150 155 160

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

Val Asp Gln Lys Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val
180 185 190

```
Ile Val Thr Ser Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser
        195                 200                 205


Thr Thr Phe Glu His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe
    210                 215                 220


Glu Leu Thr Lys Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln
225                 230                 235                 240


Glu Val Lys Asp Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val
                245                 250                 255


Thr His Glu Phe Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala
            260                 265                 270


Glu Lys Ser Leu Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr
        275                 280                 285


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


Arg Ser Ser Asp Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn
305                 310                 315                 320


Trp Asn Ser Leu Val Gly Pro Ser Trp
                325


<210> 564
<211> 312
<212> PRT
<213> Artificial Sequence

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

<400> 564
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1               5                   10                  15


Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20                  25                  30
```

```
Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
        35                  40                  45

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

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
65                  70                  75                  80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
                85                  90                  95

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100                 105                 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240
```

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
245 250 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
260 265 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
275 280 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
290 295 300

Asp Leu Ala Arg Gly Gln Pro Leu
305 310

<210> 565
<211> 312
<212> PRT
<213> Artificial Sequence

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

<400> 565
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
35 40 45

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

Leu Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
65 70 75 80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
85 90 95

```
Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100                 105                 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
    290                 295                 300
```

Asp Leu Ala Arg Gly Gln Pro Leu
305 310

<210> 566
<211> 312
<212> PRT
<213> Artificial Sequence

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

<400> 566
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
35 40 45

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

Leu Pro Ala Asp Ile Thr Gln Asn Arg Ile Tyr Arg Ile Leu Ala Leu
65 70 75 80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
85 90 95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145 150 155 160

```
Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
                165                 170                 175

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
    290                 295                 300

Asp Leu Ala Arg Gly Gln Pro Leu
305                 310
```

<210> 567
<211> 311
<212> PRT
<213> Artificial Sequence

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

<220>

<221> MOD_RES
<222> (63)..(63)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (290)..(290)
<223> Any amino acid

<400> 567
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1   5   10   15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20   25   30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
        35   40   45

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Xaa Ser
    50   55   60

Pro Pro Glu Asp Ile Ser Thr Asn Arg Ile Tyr Arg Ile Leu Ala Leu
65   70   75   80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
                85   90   95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100   105   110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115   120   125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130   135   140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145   150   155   160

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

```
Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190


Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205


Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220


Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240


Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255


Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270


Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285


Ala Xaa Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Phe Ala Asp
    290                 295                 300


Leu Ala Arg Gly Gln Pro Leu
305                 310


<210> 568
<211> 399
<212> PRT
<213> Artificial Sequence

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

<400> 568
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1               5                   10                  15


Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20                  25                  30
```

```
Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
        35                  40                  45

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

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
65                  70                  75                  80

Asn Gly Tyr Glu Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
                85                  90                  95

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100                 105                 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240
```

```
Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
    290                 295                 300

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Leu Gln Met
305                 310                 315                 320

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
                325                 330                 335

Cys Phe Thr His Gly Thr Arg Asp Cys Ser Glu Cys Phe Pro Gly Val
            340                 345                 350

Ser Glu Ser Gln Pro Val Val Arg Lys Arg Thr Tyr Arg Lys Leu Cys
        355                 360                 365

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
    370                 375                 380

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385                 390                 395


<210> 569
<211> 397
<212> PRT
<213> Artificial Sequence

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

<400> 569
Met Glu Leu Val Gly Trp Leu Val Asp Lys Gly Ile Thr Ser Glu Lys
1               5                   10                  15
```

```
Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20                  25                  30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
        35                  40                  45

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Gln Gln
    50                  55                  60

Pro Val Glu Asp Ile Ser Ser Asn Arg Ile Tyr Lys Ile Leu Glu Leu
65                  70                  75                  80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
                85                  90                  95

Thr Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100                 105                 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220
```

```
Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Lys Asp His Val Val Glu Val
                245                 250                 255

Glu His Glu Phe Tyr Val Lys Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270

Pro Ser Asp Ala Asp Ile Ser Glu Pro Lys Arg Val Arg Glu Ser Val
        275                 280                 285

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Ser Ile Asn Tyr Ala Asp
    290                 295                 300

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
305                 310                 315                 320

Phe Pro Cys Arg Gln Cys Glu Arg Met Asn Gln Asn Ser Asn Ile Cys
                325                 330                 335

Phe Thr His Gly Gln Lys Asp Cys Leu Glu Cys Phe Pro Val Ser Glu
            340                 345                 350

Ser Gln Pro Val Ser Val Val Lys Lys Ala Tyr Gln Lys Leu Cys Tyr
        355                 360                 365

Ile His His Ile Met Gly Lys Val Pro Asp Ala Cys Thr Ala Cys Asp
    370                 375                 380

Leu Val Asn Val Asp Leu Asp Asp Cys Ile Phe Glu Gln
385                 390                 395


<210> 570
<211> 400
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide
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<400> 570
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
35 40 45

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

Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
65 70 75 80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
85 90 95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145 150 155 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
180 185 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
195 200 205

```
Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Glu Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Glu Cys Thr Ser Leu
        275                 280                 285

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
    290                 295                 300

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
305                 310                 315                 320

Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Ile Ser Asn Val Cys
                325                 330                 335

Phe Thr His Gly Gln Arg Asp Cys Gly Glu Cys Phe Pro Gly Met Ser
            340                 345                 350

Glu Ser Gln Pro Val Ser Val Val Lys Lys Lys Thr Tyr Gln Lys Leu
        355                 360                 365

Cys Pro Ile His His Ile Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser
    370                 375                 380

Ala Cys Asp Leu Ala Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385                 390                 395                 400
```

<210> 571
<211> 400
<212> PRT
<213> Artificial Sequence

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

<400> 571
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
35 40 45

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

Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
65 70 75 80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
85 90 95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145 150 155 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
180 185 190

```
Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Gln Cys Thr Ser Leu
        275                 280                 285

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
    290                 295                 300

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
305                 310                 315                 320

Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Ile Ser Asn Val Cys
                325                 330                 335

Phe Thr His Gly Gln Arg Asp Cys Gly Glu Cys Phe Pro Gly Met Ser
            340                 345                 350

Glu Ser Gln Pro Val Ser Val Val Lys Lys Lys Thr Tyr Gln Lys Leu
        355                 360                 365

Cys Pro Ile His His Ile Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser
    370                 375                 380

Ala Cys Asp Leu Ala Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385                 390                 395                 400
```

<210> 572
<211> 399
<212> PRT
<213> Artificial Sequence

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

<400> 572
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
35 40 45

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

Pro Pro Glu Asp Ile Ser Ser Asn Arg Ile Tyr Arg Ile Leu Glu Met
65 70 75 80

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
85 90 95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145 150 155 160

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

```
Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Lys Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Thr His Glu Phe Tyr Val Arg Lys Gly Gly Ala Arg Lys Arg Pro Ala
            260                 265                 270

Pro Asn Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Tyr Ala Asp
    290                 295                 300

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
305                 310                 315                 320

Phe Pro Cys Arg Gln Cys Glu Arg Met Asn Gln Asn Val Asp Ile Cys
                325                 330                 335

Phe Thr His Gly Val Met Asp Cys Ala Glu Cys Phe Pro Val Ser Glu
            340                 345                 350

Ser Gln Pro Val Ser Val Val Arg Lys Arg Thr Tyr Gln Lys Leu Cys
        355                 360                 365

Pro Ile His His Ile Met Gly Arg Ala Pro Glu Val Ala Cys Ser Ala
    370                 375                 380
```

Cys Glu Leu Ala Asn Val Asp Leu Asp Asp Cys Asp Met Glu Gln
385 390 395

<210> 573
<211> 390
<212> PRT
<213> Artificial Sequence

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

<400> 573
Met Ala Leu Val Asn Trp Leu Val Glu His Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asn Gln Glu Ser Tyr Leu Ser Phe Asn Ser Thr
20 25 30

Gly Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys
35 40 45

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

Val Pro Glu Asp Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met
65 70 75 80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys
85 90 95

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

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

Cys Val Asp Lys Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn
145 150 155 160

```
Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
                165                 170                 175

Val Asp Gln Lys Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Lys Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Asp Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val
                245                 250                 255

Thr His Glu Phe Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala
            260                 265                 270

Glu Lys Ser Leu Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr
        275                 280                 285

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

Arg Ser Ser Asp Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn
305                 310                 315                 320

Trp Asn Ser Arg Tyr Asp Cys Lys Cys Asp Tyr His Ala Gln Phe Asp
                325                 330                 335

Asn Ile Ser Asn Lys Cys Asp Glu Cys Glu Tyr Leu Asn Arg Gly Lys
            340                 345                 350

Asn Gly Cys Ile Cys His Asn Val Thr His Cys Gln Ile Cys His Gly
        355                 360                 365
```

Ile Pro Pro Trp Glu Lys Glu Asn Leu Ser Asp Phe Gly Asp Phe Asp
370 375 380

Asp Ala Asn Lys Glu Gln
385 390

<210> 574
<211> 399
<212> PRT
<213> Artificial Sequence

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

<400> 574
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
35 40 45

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

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
65 70 75 80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
85 90 95

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
115 120 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
130 135 140

```
Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
    290                 295                 300

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Leu Gln Met
305                 310                 315                 320

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
                325                 330                 335

Cys Phe Thr His Gly Thr Arg Asp Cys Ser Glu Cys Phe Pro Gly Val
            340                 345                 350
```

Ser Glu Ser Gln Pro Val Val Arg Lys Arg Thr Tyr Arg Lys Leu Cys
        355   360   365

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
    370   375   380

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385   390   395

<210> 575
<211> 399
<212> PRT
<213> Artificial Sequence

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

<400> 575
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1   5   10   15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20   25   30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
        35   40   45

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

Leu Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
65   70   75   80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
                85   90   95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100   105   110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115   120   125

```
Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
    290                 295                 300

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Ile Gln Met
305                 310                 315                 320

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
                325                 330                 335
```

Cys Phe Thr His Gly Val Arg Asp Cys Leu Glu Cys Phe Pro Gly Val
340 345 350

Ser Glu Ser Gln Pro Val Val Arg Lys Lys Thr Tyr Arg Lys Leu Cys
355 360 365

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
370 375 380

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385 390 395

<210> 576
<211> 399
<212> PRT
<213> Artificial Sequence

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

<400> 576
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1 5 10 15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
20 25 30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
35 40 45

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

Leu Pro Ala Asp Ile Thr Gln Asn Arg Ile Tyr Arg Ile Leu Ala Leu
65 70 75 80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
85 90 95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
100 105 110

```
Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115                 120                 125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130                 135                 140

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
    290                 295                 300

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Leu Gln Met
305                 310                 315                 320
```

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
325 330 335

Cys Phe Thr His Gly Val Arg Asp Cys Ser Glu Cys Phe Pro Gly Val
340 345 350

Ser Glu Ser Gln Pro Val Val Arg Lys Arg Thr Tyr Arg Lys Leu Cys
355 360 365

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
370 375 380

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385 390 395

<210> 577
<211> 398
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (63)..(63)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (317)..(317)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (333)..(333)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (341)..(341)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (345)..(345)

<223> Any amino acid

<220>
<221> MOD_RES
<222> (356)..(356)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (364)..(364)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (368)..(368)
<223> Any amino acid

<400> 577
Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
1   5   10   15

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
            20   25   30

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
        35   40   45

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Xaa Ser
    50   55   60

Pro Pro Glu Asp Ile Ser Thr Asn Arg Ile Tyr Arg Ile Leu Ala Leu
65   70   75   80

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
                85   90   95

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
            100   105   110

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
        115   120   125

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
    130   135   140

```
Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
145                 150                 155                 160

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

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
            180                 185                 190

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
        195                 200                 205

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
    210                 215                 220

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
225                 230                 235                 240

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
                245                 250                 255

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
            260                 265                 270

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
        275                 280                 285

Ala Asp Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Phe Ala Asp
    290                 295                 300

Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Xaa Gln Met Leu
305                 310                 315                 320

Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Xaa Asn Ile Cys
                325                 330                 335

Phe Thr His Gly Xaa Arg Asp Cys Xaa Glu Cys Phe Pro Gly Val Ser
            340                 345                 350
```

Glu Ser Gln Xaa Val Val Arg Lys Arg Thr Tyr Xaa Lys Leu Cys Xaa
        355   360   365

Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala Cys
    370   375   380

Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
385   390   395

<210> 578
<211> 536
<212> PRT
<213> Artificial Sequence

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

<400> 578
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1   5   10   15

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

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
        35   40   45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
    50   55   60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65   70   75   80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Ile Leu Val Glu
                85   90   95

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

Arg Asp Lys Leu Val Gln Thr Ile Tyr Arg Gly Ile Glu Pro Thr Leu
        115   120   125

```
Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Pro Ala
        275                 280                 285

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Glu Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335
```

```
Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
                485                 490                 495

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
        515                 520                 525

Asp Leu Ala Arg Gly Gln Pro Leu
    530                 535
```

<210> 579

<211> 536
<212> PRT
<213> Artificial Sequence

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

<400> 579
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Thr Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Met His Val Leu Val Glu
85 90 95

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

Arg Glu Lys Leu Ile Gln Arg Ile Tyr Arg Gly Ile Glu Pro Thr Leu
115 120 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
130 135 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145 150 155 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Gln Tyr Leu
165 170 175

```
Ser Ala Cys Leu Asn Leu Thr Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Lys Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Gln Gln
        275                 280                 285

Pro Val Glu Asp Ile Ser Ser Asn Arg Ile Tyr Lys Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Thr Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
```

385 390 395 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
405 410 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
420 425 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
435 440 445

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
450 455 460

Glu Val Lys Asp Phe Phe Arg Trp Ala Lys Asp His Val Val Glu Val
465 470 475 480

Glu His Glu Phe Tyr Val Lys Lys Gly Gly Ala Lys Lys Arg Pro Ala
485 490 495

Pro Ser Asp Ala Asp Ile Ser Glu Pro Lys Arg Val Arg Glu Ser Val
500 505 510

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Ser Ile Asn Tyr Ala Asp
515 520 525

Arg Leu Ala Arg Gly His Ser Leu
530 535

<210> 580
<211> 535
<212> PRT
<213> Artificial Sequence

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

<400> 580
Met Pro Gly Phe Tyr Glu Ile Val Leu Lys Val Pro Ser Asp Leu Asp
1 5 10 15

```
Glu Arg Leu Pro Gly Ile Ser Asn Ser Phe Val Asn Trp Val Ala Glu
            20                  25                  30

Lys Glu Trp Asp Val Pro Pro Asp Ser Asp Met Asp Pro Asn Leu Ile
        35                  40                  45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Glu Phe Leu
    50                  55                  60

Val Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65                  70                  75                  80

Gln Phe Glu Lys Gly Glu Thr Tyr Phe His Leu His Val Leu Ile Glu
                85                  90                  95

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

Lys Glu Lys Leu Val Thr Arg Ile Tyr Arg Gly Val Glu Pro Gln Leu
        115                 120                 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Asp Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Asp Gln Tyr Leu
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
```

225 230 235 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
245 250 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
260 265 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Ser Asn
275 280 285

Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
290 295 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305 310 315 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
325 330 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
340 345 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
355 360 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
370 375 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385 390 395 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
405 410 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
420 425 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Glu Phe
435 440 445

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
    450   455   460

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
465   470   475   480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
                485   490   495

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Glu Cys Thr Ser Leu
            500   505   510

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
        515   520   525

Leu Ala Arg Gly Gln Pro Phe
    530   535

<210> 581
<211> 535
<212> PRT
<213> Artificial Sequence

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

<400> 581
Met Pro Gly Phe Tyr Glu Ile Val Leu Lys Val Pro Ser Asp Leu Asp
1   5   10   15

Glu His Leu Pro Gly Ile Ser Asn Ser Phe Val Asn Trp Val Ala Glu
            20   25   30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Pro Asn Leu Ile
        35   40   45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Glu Phe Leu
    50   55   60

Val Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val

```
65                  70                  75                  80

Gln Phe Glu Lys Gly Glu Thr Tyr Phe His Leu His Val Leu Ile Glu
                85                  90                  95

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

Lys Glu Lys Leu Val Thr Arg Ile Tyr Arg Gly Val Glu Pro Gln Leu
        115                 120                 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Asp Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Asp Gln Tyr Leu
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Ser Asn
        275                 280                 285
```

```
Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
                485                 490                 495
```

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Gln Cys Thr Ser Leu
500 505 510

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
515 520 525

Leu Ala Arg Gly Gln Pro Phe
530 535

<210> 582
<211> 535
<212> PRT
<213> Artificial Sequence

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

<400> 582
Met Pro Gly Phe Tyr Glu Ile Val Leu Lys Val Pro Ser Asp Leu Asp
1 5 10 15

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

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Glu Phe Leu
50 55 60

Val Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Asp Ser Tyr Phe His Leu His Ile Leu Val Glu
85 90 95

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

Lys Glu Lys Leu Val Thr Arg Ile Tyr Arg Gly Val Glu Pro Gln Leu
115 120 125

```
Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Asp Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Asp Gln Tyr Ile
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Gln Asn
        275                 280                 285

Pro Pro Glu Asp Ile Ser Ser Asn Arg Ile Tyr Arg Ile Leu Glu Met
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335
```

```
Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Lys Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
465                 470                 475                 480

Thr His Glu Phe Tyr Val Arg Lys Gly Gly Ala Arg Lys Arg Pro Ala
                485                 490                 495

Pro Asn Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Tyr Ala Asp
        515                 520                 525

Leu Ala Arg Gly Gln Pro Leu
    530                 535
```

<210> 583
<211> 549
<212> PRT
<213> Artificial Sequence

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

<400> 583
Met Ala Thr Phe Tyr Glu Val Ile Val Arg Val Pro Phe Asp Val Glu
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asp Trp Val Thr Gly
20 25 30

Gln Ile Trp Glu Leu Pro Pro Glu Ser Asp Leu Asn Leu Thr Leu Val
35 40 45

Glu Gln Pro Gln Leu Thr Val Ala Asp Arg Ile Arg Arg Val Phe Leu
50 55 60

Tyr Glu Trp Asn Lys Phe Ser Lys Gln Glu Ser Lys Phe Phe Val Gln
65 70 75 80

Phe Glu Lys Gly Ser Glu Tyr Phe His Leu His Thr Leu Val Glu Thr
85 90 95

Ser Gly Ile Ser Ser Met Val Leu Gly Arg Tyr Val Ser Gln Ile Arg
100 105 110

Ala Gln Leu Val Lys Val Val Phe Gln Gly Ile Glu Pro Gln Ile Asn
115 120 125

Asp Trp Val Ala Ile Thr Lys Val Lys Lys Gly Gly Ala Asn Lys Val
130 135 140

Val Asp Ser Gly Tyr Ile Pro Ala Tyr Leu Leu Pro Lys Val Gln Pro
145 150 155 160

Glu Leu Gln Trp Ala Trp Thr Asn Leu Asp Glu Tyr Lys Leu Ala Ala
165 170 175

```
Leu Asn Leu Glu Glu Arg Lys Arg Leu Val Ala Gln Phe Leu Ala Glu
            180                 185                 190

Ser Ser Gln Arg Ser Gln Glu Ala Ala Ser Gln Arg Glu Phe Ser Ala
        195                 200                 205

Asp Pro Val Ile Lys Ser Lys Thr Ser Gln Lys Tyr Met Ala Leu Val
    210                 215                 220

Asn Trp Leu Val Glu His Gly Ile Thr Ser Glu Lys Gln Trp Ile Gln
225                 230                 235                 240

Glu Asn Gln Glu Ser Tyr Leu Ser Phe Asn Ser Thr Gly Asn Ser Arg
                245                 250                 255

Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys Ile Met Ser Leu
            260                 265                 270

Thr Lys Ser Ala Val Asp Tyr Leu Val Gly Ser Ser Val Pro Glu Asp
        275                 280                 285

Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met Asn Gly Tyr Asp
    290                 295                 300

Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys Gln Arg Ser Phe
305                 310                 315                 320

Asn Lys Arg Asn Thr Val Trp Leu Tyr Gly Pro Ala Thr Thr Gly Lys
                325                 330                 335

Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro Phe Tyr Gly Cys
            340                 345                 350

Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp Cys Val Asp Lys
        355                 360                 365

Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn Lys Val Val Glu
    370                 375                 380
```

Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg Val Asp Gln Lys
385 390 395 400

Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val Ile Val Thr Ser
405 410 415

Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser Thr Thr Phe Glu
420 425 430

His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe Glu Leu Thr Lys
435 440 445

Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln Glu Val Lys Asp
450 455 460

Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val Thr His Glu Phe
465 470 475 480

Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala Glu Lys Ser Leu
485 490 495

Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr Lys Ser Leu Glu
500 505 510

Lys Arg Ala Arg Leu Ser Phe Val Pro Glu Thr Pro Arg Ser Ser Asp
515 520 525

Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn Trp Asn Ser Leu
530 535 540

Val Gly Pro Ser Trp
545

<210> 584
<211> 536
<212> PRT
<213> Artificial Sequence

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

<400> 584
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1   5   10   15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
            20   25   30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
        35   40   45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
    50   55   60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65   70   75   80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Ile Leu Val Glu
                85   90   95

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

Arg Asp Lys Leu Val Gln Thr Ile Tyr Arg Gly Ile Glu Pro Thr Leu
        115   120   125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130   135   140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145   150   155   160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
                165   170   175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala His Asp
            180   185   190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn
        195   200   205

```
Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Pro Ala
        275                 280                 285

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
```

420 425 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
435 440 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
450 455 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
465 470 475 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
485 490 495

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
500 505 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
515 520 525

Asp Leu Ala Arg Gly Gln Pro Leu
530 535

<210> 585
<211> 536
<212> PRT
<213> Artificial Sequence

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

<400> 585
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

```
Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
    50                  55                  60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65                  70                  75                  80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Val Leu Val Glu
                85                  90                  95

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

Arg Glu Lys Leu Val Gln Thr Ile Tyr Arg Gly Val Glu Pro Thr Leu
        115                 120                 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
```

```
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Pro Ser
        275                 280                 285

Leu Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
465                 470                 475                 480
```

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg Pro Ala
485 490 495

Pro Asp Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
500 505 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
515 520 525

Asp Leu Ala Arg Gly Gln Pro Leu
530 535

<210> 586
<211> 538
<212> PRT
<213> Artificial Sequence

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

<400> 586
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Arg Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Val Leu Val Glu
85 90 95

Thr Thr Gly Val Lys Ser Met Val Leu Gly Arg Phe Leu Ser Gln Ile

```
            100                 105                 110

Arg Glu Lys Leu Gly Pro Asp His Leu Pro Ala Gly Ser Ser Pro Thr
        115                 120                 125

Leu Pro Asn Trp Phe Ala Val Thr Lys Asp Ala Val Met Ala Pro Ala
    130                 135                 140

Gly Gly Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu
145                 150                 155                 160

Pro Lys Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu
                165                 170                 175

Tyr Ile Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala
            180                 185                 190

Gln His Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn
        195                 200                 205

Leu Asn Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala
    210                 215                 220

Arg Tyr Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser
225                 230                 235                 240

Glu Lys Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn
                245                 250                 255

Ala Ala Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala
            260                 265                 270

Gly Lys Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly
        275                 280                 285

Pro Ser Leu Pro Ala Asp Ile Thr Gln Asn Arg Ile Tyr Arg Ile Leu
    290                 295                 300

Ala Leu Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly
305                 310                 315                 320
```

```
Trp Ala Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly
                325                 330                 335

Pro Ala Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala
            340                 345                 350

Val Pro Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe
        355                 360                 365

Asn Asp Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met
    370                 375                 380

Thr Ala Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys
385                 390                 395                 400

Val Arg Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr
                405                 410                 415

Pro Val Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly
            420                 425                 430

Asn Ser Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe
        435                 440                 445

Lys Phe Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr
    450                 455                 460

Lys Gln Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr
465                 470                 475                 480

Glu Val Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg
                485                 490                 495

Pro Ala Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro
            500                 505                 510

Ser Val Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp
        515                 520                 525
```

Phe Ala Asp Leu Ala Arg Gly Gln Pro Leu
530 535

<210> 587
<211> 623
<212> PRT
<213> Artificial Sequence

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

<400> 587
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

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

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Ile Leu Val Glu
85 90 95

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

Arg Asp Lys Leu Val Gln Thr Ile Tyr Arg Gly Ile Glu Pro Thr Leu
115 120 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
130 135 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145 150 155 160

```
Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Pro Ala
        275                 280                 285

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Glu Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365
```

```
Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
                485                 490                 495

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
        515                 520                 525

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Leu Gln Met
    530                 535                 540

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
545                 550                 555                 560

Cys Phe Thr His Gly Thr Arg Asp Cys Ser Glu Cys Phe Pro Gly Val
                565                 570                 575
```

Ser Glu Ser Gln Pro Val Val Arg Lys Arg Thr Tyr Arg Lys Leu Cys
580 585 590

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
595 600 605

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
610 615 620

<210> 588
<211> 621
<212> PRT
<213> Artificial Sequence

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

<400> 588
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Thr Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Met His Val Leu Val Glu
85 90 95

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

Arg Glu Lys Leu Ile Gln Arg Ile Tyr Arg Gly Ile Glu Pro Thr Leu
115 120 125

```
Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Gln Tyr Leu
                165                 170                 175

Ser Ala Cys Leu Asn Leu Thr Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Lys Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Gln Gln
        275                 280                 285

Pro Val Glu Asp Ile Ser Ser Asn Arg Ile Tyr Lys Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Thr Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335
```

```
Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Asp Phe Phe Arg Trp Ala Lys Asp His Val Val Glu Val
465                 470                 475                 480

Glu His Glu Phe Tyr Val Lys Lys Gly Gly Ala Lys Lys Arg Pro Ala
                485                 490                 495

Pro Ser Asp Ala Asp Ile Ser Glu Pro Lys Arg Val Arg Glu Ser Val
            500                 505                 510

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Ser Ile Asn Tyr Ala Asp
        515                 520                 525

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
    530                 535                 540

Phe Pro Cys Arg Gln Cys Glu Arg Met Asn Gln Asn Ser Asn Ile Cys
```

545 550 555 560

Phe Thr His Gly Gln Lys Asp Cys Leu Glu Cys Phe Pro Val Ser Glu
565 570 575

Ser Gln Pro Val Ser Val Val Lys Lys Ala Tyr Gln Lys Leu Cys Tyr
580 585 590

Ile His His Ile Met Gly Lys Val Pro Asp Ala Cys Thr Ala Cys Asp
595 600 605

Leu Val Asn Val Asp Leu Asp Asp Cys Ile Phe Glu Gln
610 615 620

<210> 589
<211> 624
<212> PRT
<213> Artificial Sequence

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

<400> 589
Met Pro Gly Phe Tyr Glu Ile Val Leu Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu Arg Leu Pro Gly Ile Ser Asn Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Asp Val Pro Pro Asp Ser Asp Met Asp Pro Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Glu Phe Leu
50 55 60

Val Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Thr Tyr Phe His Leu His Val Leu Ile Glu
85 90 95

```
Thr Ile Gly Val Lys Ser Met Val Val Gly Arg Tyr Val Ser Gln Ile
            100                 105                 110

Lys Glu Lys Leu Val Thr Arg Ile Tyr Arg Gly Val Glu Pro Gln Leu
        115                 120                 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Asp Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Asp Gln Tyr Leu
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Ser Asn
        275                 280                 285

Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
```

```
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Glu Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
                485                 490                 495

Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Glu Cys Thr Ser Leu
            500                 505                 510

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
        515                 520                 525
```

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
530 535 540

Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Ile Ser Asn Val Cys
545 550 555 560

Phe Thr His Gly Gln Arg Asp Cys Gly Glu Cys Phe Pro Gly Met Ser
565 570 575

Glu Ser Gln Pro Val Ser Val Val Lys Lys Lys Thr Tyr Gln Lys Leu
580 585 590

Cys Pro Ile His His Ile Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser
595 600 605

Ala Cys Asp Leu Ala Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
610 615 620

<210> 590
<211> 624
<212> PRT
<213> Artificial Sequence

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

<400> 590
Met Pro Gly Phe Tyr Glu Ile Val Leu Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asn Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Pro Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Glu Phe Leu
50 55 60

Val Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val

```
65                  70                  75                  80

Gln Phe Glu Lys Gly Glu Thr Tyr Phe His Leu His Val Leu Ile Glu
                85                  90                  95

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

Lys Glu Lys Leu Val Thr Arg Ile Tyr Arg Gly Val Glu Pro Gln Leu
        115                 120                 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Asp Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Asp Gln Tyr Leu
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Ser Asn
        275                 280                 285
```

```
Pro Pro Glu Asp Ile Thr Lys Asn Arg Ile Tyr Gln Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Glu Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Asp His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Asp Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
                485                 490                 495
```

```
Ser Asn Asp Ala Asp Val Ser Glu Pro Lys Arg Gln Cys Thr Ser Leu
            500                 505                 510

Ala Gln Pro Thr Thr Ser Asp Ala Glu Ala Pro Ala Asp Tyr Ala Asp
        515                 520                 525

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
    530                 535                 540

Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Ile Ser Asn Val Cys
545                 550                 555                 560

Phe Thr His Gly Gln Arg Asp Cys Gly Glu Cys Phe Pro Gly Met Ser
                565                 570                 575

Glu Ser Gln Pro Val Ser Val Val Lys Lys Lys Thr Tyr Gln Lys Leu
            580                 585                 590

Cys Pro Ile His His Ile Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser
        595                 600                 605

Ala Cys Asp Leu Ala Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
    610                 615                 620


<210> 591
<211> 623
<212> PRT
<213> Artificial Sequence

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

<400> 591
Met Pro Gly Phe Tyr Glu Ile Val Leu Lys Val Pro Ser Asp Leu Asp
1               5                   10                  15

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

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
        35                  40                  45
```

```
Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Glu Phe Leu
    50                  55                  60

Val Glu Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65                  70                  75                  80

Gln Phe Glu Lys Gly Asp Ser Tyr Phe His Leu His Ile Leu Val Glu
                85                  90                  95

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

Lys Glu Lys Leu Val Thr Arg Ile Tyr Arg Gly Val Glu Pro Gln Leu
        115                 120                 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Asp Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Asp Gln Tyr Ile
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Gln Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255
```

```
Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Ser Lys
            260                 265                 270

Ile Met Ser Leu Thr Lys Thr Ala Pro Asp Tyr Leu Val Gly Gln Asn
        275                 280                 285

Pro Pro Glu Asp Ile Ser Ser Asn Arg Ile Tyr Arg Ile Leu Glu Met
    290                 295                 300

Asn Gly Tyr Asp Pro Gln Tyr Ala Ala Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Lys Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460
```

```
Glu Val Lys Asp Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
465                 470                 475                 480

Thr His Glu Phe Tyr Val Arg Lys Gly Gly Ala Arg Lys Arg Pro Ala
                485                 490                 495

Pro Asn Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Gln Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Tyr Ala Asp
        515                 520                 525

Arg Tyr Gln Asn Lys Cys Ser Arg His Val Gly Met Asn Leu Met Leu
    530                 535                 540

Phe Pro Cys Arg Gln Cys Glu Arg Met Asn Gln Asn Val Asp Ile Cys
545                 550                 555                 560

Phe Thr His Gly Val Met Asp Cys Ala Glu Cys Phe Pro Val Ser Glu
                565                 570                 575

Ser Gln Pro Val Ser Val Val Arg Lys Arg Thr Tyr Gln Lys Leu Cys
            580                 585                 590

Pro Ile His His Ile Met Gly Arg Ala Pro Glu Val Ala Cys Ser Ala
        595                 600                 605

Cys Glu Leu Ala Asn Val Asp Leu Asp Asp Cys Asp Met Glu Gln
    610                 615                 620


<210> 592
<211> 610
<212> PRT
<213> Artificial Sequence

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

<400> 592
Met Ala Thr Phe Tyr Glu Val Ile Val Arg Val Pro Phe Asp Val Glu
1               5                   10                  15
```

```
Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asp Trp Val Thr Gly
            20                  25                  30

Gln Ile Trp Glu Leu Pro Pro Glu Ser Asp Leu Asn Leu Thr Leu Val
        35                  40                  45

Glu Gln Pro Gln Leu Thr Val Ala Asp Arg Ile Arg Arg Val Phe Leu
    50                  55                  60

Tyr Glu Trp Asn Lys Phe Ser Lys Gln Glu Ser Lys Phe Phe Val Gln
65                  70                  75                  80

Phe Glu Lys Gly Ser Glu Tyr Phe His Leu His Thr Leu Val Glu Thr
                85                  90                  95

Ser Gly Ile Ser Ser Met Val Leu Gly Arg Tyr Val Ser Gln Ile Arg
            100                 105                 110

Ala Gln Leu Val Lys Val Val Phe Gln Gly Ile Glu Pro Gln Ile Asn
        115                 120                 125

Asp Trp Val Ala Ile Thr Lys Val Lys Lys Gly Gly Ala Asn Lys Val
    130                 135                 140

Val Asp Ser Gly Tyr Ile Pro Ala Tyr Leu Leu Pro Lys Val Gln Pro
145                 150                 155                 160

Glu Leu Gln Trp Ala Trp Thr Asn Leu Asp Glu Tyr Lys Leu Ala Ala
                165                 170                 175

Leu Asn Leu Glu Glu Arg Lys Arg Leu Val Ala Gln Phe Leu Ala Glu
            180                 185                 190

Ser Ser Gln Arg Ser Gln Glu Ala Ala Ser Gln Arg Glu Phe Ser Ala
        195                 200                 205

Asp Pro Val Ile Lys Ser Lys Thr Ser Gln Lys Tyr Met Ala Leu Val
    210                 215                 220
```

```
Asn Trp Leu Val Glu His Gly Ile Thr Ser Glu Lys Gln Trp Ile Gln
225                 230                 235                 240

Glu Asn Gln Glu Ser Tyr Leu Ser Phe Asn Ser Thr Gly Asn Ser Arg
                245                 250                 255

Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Thr Lys Ile Met Ser Leu
            260                 265                 270

Thr Lys Ser Ala Val Asp Tyr Leu Val Gly Ser Ser Val Pro Glu Asp
        275                 280                 285

Ile Ser Lys Asn Arg Ile Trp Gln Ile Phe Glu Met Asn Gly Tyr Asp
    290                 295                 300

Pro Ala Tyr Ala Gly Ser Ile Leu Tyr Gly Trp Cys Gln Arg Ser Phe
305                 310                 315                 320

Asn Lys Arg Asn Thr Val Trp Leu Tyr Gly Pro Ala Thr Thr Gly Lys
                325                 330                 335

Thr Asn Ile Ala Glu Ala Ile Ala His Thr Val Pro Phe Tyr Gly Cys
            340                 345                 350

Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp Cys Val Asp Lys
        355                 360                 365

Met Leu Ile Trp Trp Glu Glu Gly Lys Met Thr Asn Lys Val Val Glu
    370                 375                 380

Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg Val Asp Gln Lys
385                 390                 395                 400

Cys Lys Ser Ser Val Gln Ile Asp Ser Thr Pro Val Ile Val Thr Ser
                405                 410                 415

Asn Thr Asn Met Cys Val Val Val Asp Gly Asn Ser Thr Thr Phe Glu
            420                 425                 430

His Gln Gln Pro Leu Glu Asp Arg Met Phe Lys Phe Glu Leu Thr Lys
```

```
        435                 440                 445

Arg Leu Pro Pro Asp Phe Gly Lys Ile Thr Lys Gln Glu Val Lys Asp
    450                 455                 460

Phe Phe Ala Trp Ala Lys Val Asn Gln Val Pro Val Thr His Glu Phe
465                 470                 475                 480

Lys Val Pro Arg Glu Leu Ala Gly Thr Lys Gly Ala Glu Lys Ser Leu
                485                 490                 495

Lys Arg Pro Leu Gly Asp Val Thr Asn Thr Ser Tyr Lys Ser Leu Glu
            500                 505                 510

Lys Arg Ala Arg Leu Ser Phe Val Pro Glu Thr Pro Arg Ser Ser Asp
        515                 520                 525

Val Thr Val Asp Pro Ala Pro Leu Arg Pro Leu Asn Trp Asn Ser Arg
    530                 535                 540

Tyr Asp Cys Lys Cys Asp Tyr His Ala Gln Phe Asp Asn Ile Ser Asn
545                 550                 555                 560

Lys Cys Asp Glu Cys Glu Tyr Leu Asn Arg Gly Lys Asn Gly Cys Ile
                565                 570                 575

Cys His Asn Val Thr His Cys Gln Ile Cys His Gly Ile Pro Pro Trp
            580                 585                 590

Glu Lys Glu Asn Leu Ser Asp Phe Gly Asp Phe Asp Asp Ala Asn Lys
        595                 600                 605

Glu Gln
    610
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<210> 593
<211> 623
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
polypeptide

<400> 593
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Ile Leu Val Glu
85 90 95

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

Arg Asp Lys Leu Val Gln Thr Ile Tyr Arg Gly Ile Glu Pro Thr Leu
115 120 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
130 135 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145 150 155 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
165 170 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala His Asp
180 185 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn

```
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Pro Ala
        275                 280                 285

Pro Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Arg Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415
```

```
Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Gln Asp His Val Thr Glu Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Asn Lys Arg Pro Ala
                485                 490                 495

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
        515                 520                 525

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Leu Gln Met
    530                 535                 540

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
545                 550                 555                 560

Cys Phe Thr His Gly Thr Arg Asp Cys Ser Glu Cys Phe Pro Gly Val
                565                 570                 575

Ser Glu Ser Gln Pro Val Val Arg Lys Arg Thr Tyr Arg Lys Leu Cys
            580                 585                 590

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
        595                 600                 605

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
    610                 615                 620
```

<210> 594
<211> 623
<212> PRT
<213> Artificial Sequence

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

<400> 594
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Leu Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Val Leu Val Glu
85 90 95

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

Arg Glu Lys Leu Val Gln Thr Ile Tyr Arg Gly Val Glu Pro Thr Leu
115 120 125

Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
130 135 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145 150 155 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
165 170 175

```
Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Pro Ser
        275                 280                 285

Leu Pro Ala Asp Ile Lys Thr Asn Arg Ile Tyr Arg Ile Leu Glu Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335

Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380
```

```
Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg Pro Ala
                485                 490                 495

Pro Asp Asp Ala Asp Ile Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp Phe Ala
        515                 520                 525

Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Ile Gln Met
    530                 535                 540

Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe Asn Ile
545                 550                 555                 560

Cys Phe Thr His Gly Val Arg Asp Cys Leu Glu Cys Phe Pro Gly Val
                565                 570                 575

Ser Glu Ser Gln Pro Val Val Arg Lys Lys Thr Tyr Arg Lys Leu Cys
            580                 585                 590
```

Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala
595 600 605

Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
610 615 620

<210> 595
<211> 625
<212> PRT
<213> Artificial Sequence

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

<400> 595
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1 5 10 15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
20 25 30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Arg Asn Leu Ile
35 40 45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
50 55 60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65 70 75 80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Val Leu Val Glu
85 90 95

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

Arg Glu Lys Leu Gly Pro Asp His Leu Pro Ala Gly Ser Ser Pro Thr
115 120 125

Leu Pro Asn Trp Phe Ala Val Thr Lys Asp Ala Val Met Ala Pro Ala
130 135 140

```
Gly Gly Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu
145                 150                 155                 160

Pro Lys Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu
                165                 170                 175

Tyr Ile Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala
            180                 185                 190

Gln His Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn
        195                 200                 205

Leu Asn Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala
    210                 215                 220

Arg Tyr Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser
225                 230                 235                 240

Glu Lys Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn
                245                 250                 255

Ala Ala Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala
            260                 265                 270

Gly Lys Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly
        275                 280                 285

Pro Ser Leu Pro Ala Asp Ile Thr Gln Asn Arg Ile Tyr Arg Ile Leu
    290                 295                 300

Ala Leu Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly
305                 310                 315                 320

Trp Ala Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly
                325                 330                 335

Pro Ala Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala
            340                 345                 350
```

```
Val Pro Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe
        355                 360                 365

Asn Asp Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met
    370                 375                 380

Thr Ala Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys
385                 390                 395                 400

Val Arg Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr
                405                 410                 415

Pro Val Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly
            420                 425                 430

Asn Ser Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe
        435                 440                 445

Lys Phe Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr
    450                 455                 460

Lys Gln Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr
465                 470                 475                 480

Glu Val Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Ser Lys Arg
                485                 490                 495

Pro Ala Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro
            500                 505                 510

Ser Val Ala Asp Pro Ser Thr Ser Asp Ala Glu Gly Ala Pro Val Asp
        515                 520                 525

Phe Ala Asp Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Leu
    530                 535                 540

Gln Met Leu Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Phe
545                 550                 555                 560

Asn Ile Cys Phe Thr His Gly Val Arg Asp Cys Ser Glu Cys Phe Pro
```

565 570 575

Gly Val Ser Glu Ser Gln Pro Val Val Arg Lys Arg Thr Tyr Arg Lys
580 585 590

Leu Cys Ala Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys
595 600 605

Ser Ala Cys Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu
610 615 620

Gln
625

<210> 596
<211> 622
<212> PRT
<213> Artificial Sequence

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

<220>
<221> MOD_RES
<222> (118)..(119)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (287)..(287)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (541)..(541)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (557)..(557)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (565)..(565)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (569)..(569)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (580)..(580)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (588)..(588)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (592)..(592)
<223> Any amino acid

<400> 596
Met Pro Gly Phe Tyr Glu Ile Val Ile Lys Val Pro Ser Asp Leu Asp
1   5   10   15

Glu His Leu Pro Gly Ile Ser Asp Ser Phe Val Asn Trp Val Ala Glu
            20   25   30

Lys Glu Trp Glu Leu Pro Pro Asp Ser Asp Met Asp Arg Asn Leu Ile
        35   40   45

Glu Gln Ala Pro Leu Thr Val Ala Glu Lys Leu Gln Arg Asp Phe Leu
    50   55   60

Val Gln Trp Arg Arg Val Ser Lys Ala Pro Glu Ala Leu Phe Phe Val
65   70   75   80

Gln Phe Glu Lys Gly Glu Ser Tyr Phe His Leu His Val Leu Val Glu
                85   90   95

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

Arg Glu Lys Leu Val Xaa Xaa Ile Tyr Arg Gly Ile Glu Pro Thr Leu
        115   120   125

```
Pro Asn Trp Phe Ala Val Thr Lys Thr Arg Asn Gly Ala Gly Gly Gly
    130                 135                 140

Asn Lys Val Val Asp Glu Cys Tyr Ile Pro Asn Tyr Leu Leu Pro Lys
145                 150                 155                 160

Thr Gln Pro Glu Leu Gln Trp Ala Trp Thr Asn Met Glu Glu Tyr Ile
                165                 170                 175

Ser Ala Cys Leu Asn Leu Ala Glu Arg Lys Arg Leu Val Ala Gln His
            180                 185                 190

Leu Thr His Val Ser Gln Thr Gln Glu Gln Asn Lys Glu Asn Leu Asn
        195                 200                 205

Pro Asn Ser Asp Ala Pro Val Ile Arg Ser Lys Thr Ser Ala Arg Tyr
    210                 215                 220

Met Glu Leu Val Gly Trp Leu Val Asp Arg Gly Ile Thr Ser Glu Lys
225                 230                 235                 240

Gln Trp Ile Gln Glu Asp Gln Ala Ser Tyr Ile Ser Phe Asn Ala Ala
                245                 250                 255

Ser Asn Ser Arg Ser Gln Ile Lys Ala Ala Leu Asp Asn Ala Gly Lys
            260                 265                 270

Ile Met Ala Leu Thr Lys Ser Ala Pro Asp Tyr Leu Val Gly Xaa Ser
        275                 280                 285

Pro Pro Glu Asp Ile Ser Thr Asn Arg Ile Tyr Arg Ile Leu Ala Leu
    290                 295                 300

Asn Gly Tyr Asp Pro Ala Tyr Ala Gly Ser Val Phe Leu Gly Trp Ala
305                 310                 315                 320

Gln Lys Lys Phe Gly Lys Arg Asn Thr Ile Trp Leu Phe Gly Pro Ala
                325                 330                 335
```

```
Thr Thr Gly Lys Thr Asn Ile Ala Glu Ala Ile Ala His Ala Val Pro
            340                 345                 350

Phe Tyr Gly Cys Val Asn Trp Thr Asn Glu Asn Phe Pro Phe Asn Asp
        355                 360                 365

Cys Val Asp Lys Met Val Ile Trp Trp Glu Glu Gly Lys Met Thr Ala
    370                 375                 380

Lys Val Val Glu Ser Ala Lys Ala Ile Leu Gly Gly Ser Lys Val Arg
385                 390                 395                 400

Val Asp Gln Lys Cys Lys Ser Ser Ala Gln Ile Asp Pro Thr Pro Val
                405                 410                 415

Ile Val Thr Ser Asn Thr Asn Met Cys Ala Val Ile Asp Gly Asn Ser
            420                 425                 430

Thr Thr Phe Glu His Gln Gln Pro Leu Gln Asp Arg Met Phe Lys Phe
        435                 440                 445

Glu Leu Thr Arg Arg Leu Glu His Asp Phe Gly Lys Val Thr Lys Gln
    450                 455                 460

Glu Val Lys Glu Phe Phe Arg Trp Ala Ser Asp His Val Thr Glu Val
465                 470                 475                 480

Ala His Glu Phe Tyr Val Arg Lys Gly Gly Ala Lys Lys Arg Pro Ala
                485                 490                 495

Pro Asp Asp Ala Asp Lys Ser Glu Pro Lys Arg Ala Cys Pro Ser Val
            500                 505                 510

Ala Asp Pro Ser Thr Ser Asp Ala Glu Ala Pro Val Asp Phe Ala Asp
        515                 520                 525

Arg Tyr Gln Asn Lys Cys Ser Arg His Ala Gly Met Xaa Gln Met Leu
    530                 535                 540

Phe Pro Cys Lys Thr Cys Glu Arg Met Asn Gln Asn Xaa Asn Ile Cys
```

545 550 555 560

Phe Thr His Gly Xaa Arg Asp Cys Xaa Glu Cys Phe Pro Gly Val Ser
565 570 575

Glu Ser Gln Xaa Val Val Arg Lys Arg Thr Tyr Xaa Lys Leu Cys Xaa
580 585 590

Ile His His Leu Leu Gly Arg Ala Pro Glu Ile Ala Cys Ser Ala Cys
595 600 605

Asp Leu Val Asn Val Asp Leu Asp Asp Cys Val Ser Glu Gln
610 615 620

<210> 597
<211> 1530
<212> DNA
<213> Artificial Sequence

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

<400> 597
atgtccatgg gggcaccgcg gtccctcctc ctggccctgg ctgctggcct ggccgttgcc 60

cgtccgccca acatcgtgct gatctttgcc gacgacctcg gctatgggga cctgggctgc 120

tatgggcacc ccagctctac cactcccaac ctggaccagc tggcggcggg agggctgcgg 180

ttcacagact tctacgtgcc tgtgtctctg tgcacaccct ctagggccgc cctcctgacc 240

ggccggctcc cggttcggat gggcatgtac cctggcgtcc tggtgcccag ctcccggggg 300

ggcctgcccc tggaggaggt gaccgtggcc gaagtcctgg ctgcccgagg ctacctcaca 360

ggaatggccg gcaagtggca ccttggggtg gggcctgagg gggccttcct gccccccat 420

cagggcttcc atcgatttct aggcatcccg tactcccacg accagggccc ctgccagaac 480

ctgacctgct tcccgccggc cactccttgc gacggtggct gtgaccaggg cctggtcccc 540

atcccactgt tggccaacct gtccgtggag gcgcagcccc cctggctgcc cggactagag 600

gcccgctaca tggctttcgc ccatgacctc atggccgacg cccagcgcca ggatcgcccc 660

ttcttcctgt actatgcctc tcaccacacc cactaccctc agttcagtgg gcagagcttt 720

gcagagcgtt caggccgcgg gccatttggg gactccctga tggagctgga tgcagctgtg 780

gggaccctga tgacagccat aggggacctg gggctgcttg aagagacgct ggtcatcttc 840

actgcagaca atggacctga gaccatgcgt atgtcccgag gcggctgctc cggtctcttg 900

cggtgtggaa agggaacgac ctacgagggc ggtgtccgag agcctgcctt ggccttctgg 960

ccaggtcata tcgctcccgg cgtgacccac gagctggcca gctccctgga cctgctgcct 1020

accctggcag ccctggctgg ggccccactg cccaatgtca ccttggatgg ctttgacctc 1080

agccccctgc tgctgggcac aggcaagagc cctcggcagt ctctcttctt ctacccgtcc 1140

tacccagacg aggtccgtgg ggtttttgct gtgcggactg gaaagtacaa ggctcacttc 1200

ttcacccagg gctctgccca cagtgatacc actgcagacc ctgcctgcca cgcctccagc 1260

tctctgactg ctcatgagcc cccgctgctc tatgacctgt ccaaggaccc tggtgagaac 1320

tacaacctgc tgggggtgt ggccggggcc accccagagg tgctgcaagc cctgaaacag 1380

cttcagctgc tcaaggccca gttagacgca gctgtgacct tcggccccag ccaggtggcc 1440

cggggcgagg accccgccct gcagatctgc tgtcatcctg gctgcacccc ccgcccagct 1500

tgctgccatt gcccagatcc ccatgcctga 1530

<210> 598
<211> 1653
<212> DNA
<213> Artificial Sequence

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

<400> 598
atgccgccac cccggaccgg ccgaggcctt ctctggctgg gtctggttct gagctccgtc 60

tgcgtcgccc tcggatccga aacgcaggcc aactcgacca cagatgctct gaacgttctt 120

ctcatcatcg tggatgacct gcgcccctcc ctgggctgtt atggggataa gctggtgagg 180

tccccaaata ttgaccaact ggcatcccac agcctcctct tccagaatgc ctttgcgcag 240

caagcagtgt gcgccccgag ccgcgtttct ttcctcactg gcaggagacc tgacaccacc 300

cgcctgtacg acttcaactc ctactggagg gtgcacgctg gaaacttctc caccatcccc 360

cagtacttca aggagaatgg ctatgtgacc atgtcggtgg gaaaagtctt tcaccctggg 420

atatcttcta accataccga tgattctccg tatagctggt cttttccacc ttatcatcct 480

tcctctgaga agtatgaaaa cactaagaca tgtcgagggc cagatggaga actccatgcc 540

aacctgcttt gccctgtgga tgtgctggat gttcccgagg gcaccttgcc tgacaaacag 600

agcactgagc aagccataca gttgttggaa aagatgaaaa cgtcagccag tcctttcttc 660

ctggccgttg ggtatcataa gccacacatc cccttcagat accccaagga atttcagaag 720

ttgtatccct tggagaacat caccctggcc cccgatcccg aggtccctga tggcctaccc 780

cctgtggcct acaacccctg gatggacatc aggcaacggg aagacgtcca agccttaaac 840

atcagtgtgc cgtatggtcc aattcctgtg gactttcagc ggaaaatccg ccagagctac 900

tttgcctctg tgtcatattt ggatacacag gtcggccgcc tcttgagtgc tttggacgat 960

cttcagctgg ccaacagcac catcattgca tttacctcgg atcatgggtg ggctctaggt 1020

gaacatggag aatgggccaa atacagcaat tttgatgttg ctacccatgt tcccctgata 1080

ttctatgttc ctggaaggac ggcttcactt ccggaggcag gcgagaagct tttcccttac 1140

ctcgaccctt ttgattccgc ctcacagttg atggagccag gcaggcaatc catggacctt 1200

gtggaacttg tgtctctttt tcccacgctg gctggacttg caggactgca ggttccacct 1260

cgctgccccg ttccttcatt tcacgttgag ctgtgcagag aaggcaagaa ccttctgaag 1320

cattttcgat tccgtgactt ggaagaggat ccgtacctcc ctggtaatcc ccgtgaactg 1380

attgcctata gccagtatcc ccggccttca gacatccctc agtggaattc tgacaagccg 1440

agtttaaaag atataaagat catgggctat tccatacgca ccatagacta taggtatact 1500

gtgtgggttg gcttcaatcc tgatgaattt ctagctaact tttctgacat ccatgcaggg 1560

gaactgtatt ttgtggattc tgacccattg caggatcaca atatgtataa tgattcccaa 1620

ggtggagatc ttttccagtt gttgatgcct tga 1653

<210> 599
<211> 16
<212> DNA
<213> Artificial Sequence

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

<400> 599

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