SEQUENCE LISTING

<110> CureVac AG

<120> Novel artificial nucleic acid molecules

<130> CU01P191WO1

<160> 211

<170> PatentIn version 3.5

<210> 1
<211> 322
<212> DNA
<213> Homo sapiens

<400> 1
gaaacagtgt ggggcctaga gcgctgggtg ggcgcgttct gcggcctgag cagggacggg 60

tagtgaagcg gttacgcccc ttcttcgcgt cttggcggga gcctgacgcc ccgcttctcc 120

cctaacgagg tgtcccaccg gcgcccgccg aggcctaggc ctccgcagcc gccctccgtc 180

tcctcagccc cgacgctgcg ccttgggcct tgtgcgcatt tttttcgggg gaaaactgag 240

gctcggagtg cgaaagtcag ccgaggtcgc cccgcccagg acagagaagg gctgtggtcg 300

gctgatccgc ggcattcccg gg 322

<210> 2
<211> 100
<212> DNA
<213> Homo sapiens

<400> 2
ataagttagc gccgctctcc gcctcggcag tgccagccgc cagtggtcgc acttggaggg 60

tctcgccgcc agtggaagga gccaccgccc ccgcccgacc 100

<210> 3
<211> 103
<212> DNA
<213> Homo sapiens

<400> 3
atctaagctt ctctgtcttc ctccctccct cccttcctct tactctcatt catttcatac 60

acactggctc acacatctac tctctctctc tatctctctc aga 103

<210> 4
<211> 236
<212> DNA
<213> Homo sapiens

<400> 4
cctttcctcc ctccccgccc tctccccgct gtcccctccc cgtcggcccg cctgcccagc 60

ctttagcctc ccgcccgccg cctctgtctc cctctctcca caaactgccc aggagtgagt 120

agctgctttc ggtccgccgg acacaccgga cagatagacg tgcggacggc ccaccacccc 180

agcccgccaa ctagtcagcc tgcgcctggc gcctcccctc tccaggtcca tccgcc 236

<210> 5
<211> 210
<212> DNA
<213> Homo sapiens

<400> 5
gcgcacgtcc cggattcctc ccacgagggg gcgggctgcg gccaaatctc ccgccaggtc 60

agcggccggg cgctgattgg ccccatggcg gcggggccgg ctcgtgattg gccagcacgc 120

cgtggtttaa agcggtcggc gcgggaacca ggggcttact gcgggacggc cttggagagt 180

actcgggttc gtgaacttcc cggaggcgca 210

<210> 6
<211> 213
<212> DNA
<213> Homo sapiens

<400> 6
agactccgcc cttgggcggg gcctggatgc ggccggagcg gagcagtgct ggagcgggag 60

cctcagccct caggcgccac tgtgaggacc tgaccggacc agaccatccc gcagcgcccc 120

gccccggccc cctccgcgcc ctcccgacgc caggtcctgc cgtcccgccg accgtccggg 180

agcgaacccg tcgtcccgca ctcggagtcc gcg 213

<210> 7
<211> 63
<212> DNA
<213> Homo sapiens

<400> 7
gagcggtgcc gcaccggccg cgggcgcagg gagtattatg ggctgtgggt gccgctgagc 60

aag 63

<210> 8
<211> 245
<212> DNA
<213> Homo sapiens

<400> 8
gaggagagag ggcagcagcg cgcggtgtct ccggctgctc agtccgaccg cggcaagcaa 60

gcgggcaggc gcaccgcccc ctcccccgcc cggcctcccc aactctgcgg ccgcgagtaa 120

agtttgcaaa gaggcgcggg aggcggcagc cgcagcgagg aggcggcggg gaagaagcgc 180

agtctccggg ttgggggcgg gggcgggggg ggcgccaagg agccgggtgg ggggcggcgg 240

ccagc 245

<210> 9
<211> 259
<212> DNA
<213> Homo sapiens

<400> 9
atcacagccc ttccccgatc ctctccgtgg gagccagcga gcctctctcc ctgatcttac 60

gtgctcaagg gagctcacac gttcaccaac tcacccttga agtcatctca agaacaaaag 120

acaactgaaa gaagctgttg tgaaggcaga gcagcatctg ctgaagagac agaaaccagc 180

cccagaggtg tcacaggaag gcaccagcaa ggacattggt ctttgatttg attcagcagt 240

cctgtcaagt ataaatgtg 259

<210> 10
<211> 43
<212> DNA
<213> Homo sapiens

<400> 10
aaggagaacg gacctcagag gttgtctgaa ggccgaggcc aag 43

<210> 11
<211> 227
<212> DNA
<213> Homo sapiens

<400> 11
gcagggattt ggcaacctca gagccgcgag gaggaggcgg agtcgcggag agtttgagta 60

tttccgtcca atcaaaagga gactgtaaga ggaggaggag gaggagatga ctggggagcg 120

ggagctggag aatactgccc agttactcta gcgcgccagg ccgaaccgca gcttcttggc 180

ttaggtactt ctactcacag cggccgattc cgaggccaac tccagca 227

<210> 12
<211> 180
<212> DNA
<213> Homo sapiens

<400> 12
tccgcccccc tcccgcctcc ccgtatataa gacttcgccg agcgctctca ctcgcacaag 60

tggaccgggg tgttgggtgc tagtcggcac cagaggcaag ggtgcgagga ccacggccgg 120

ctcggacgtg tgaccgcgcc taggggggtgg cagcgggcag tgcggggcgg caaggcgacc 180

<210> 13
<211> 120
<212> DNA
<213> Homo sapiens

<400> 13
ggcggctggg aggggcgggg cggatgcggg gacagcggcc tggctaactc ctgccaggca 60

gtgcccttcc cggagcgtgc cctcgccgct gagctcccct gaacagcagc tgcagcagcc 120

<210> 14
<211> 80
<212> DNA
<213> Homo sapiens

<400> 14
atgggctgga gctccgggca gtgtgcgagg cgcacgcaca ggagcctgca ctctgcgtcc 60

cgcaccccag cagccgcgcc 80

<210> 15
<211> 239
<212> DNA
<213> Homo sapiens

<400> 15
gctgcggccg gctgcgggga taaatactgc ggcagctact gccgcgcagc actcccggag 60

cctgcaacgc ttgagatcct ctccgcgccc gccaccccgc agggtgcccc gcgccgttcc 120

cgccgccccg ccgcccccgt cgcgggcccc tgcaccccga gcatccgccc cgggtggcac 180

gtccccgagc ccaccaggcc ggccccgtct ccccatccgt ctagtccgct cgcggtgcc 239

<210> 16
<211> 234
<212> DNA
<213> Homo sapiens

<400> 16
gccttagaaa agttaacgag aaccagatgt ggtggccact gccgaacttt ctcagagccg 60

gtgattggtc cccagccgag ggcctcagcc aattagcttg ctgggtgggc ctggagtccc 120

gccccgccca ggcgcccgcg gagatccagg ttcgaggctg gcgcggcgcg gagagtgggc 180

tggaggccgg ggcgggacgc gttgtgcagc gggtaagcgc acggccgagc gagc 234

<210> 17
<211> 101
<212> DNA
<213> Homo sapiens

<400> 17
cagacgtccc tgcgcgtcgt cctcctcgcc ctccaggccg cccgcgccgc gccggagtcc 60

gctgtccgcc agctacccgc ttcctgccgc ccgccgctgc c 101

<210> 18
<211> 110
<212> DNA
<213> Homo sapiens

<400> 18
atggcggacc tccggaaacc gtagattccg ggcggtcgga gccgccggga gctgtagttc 60

tcccgcggct cagagaagta ggcagagagc ggacctggcg gccgggcagc 110

<210> 19
<211> 96
<212> DNA
<213> Homo sapiens

<400> 19
ggctcggagg cccctctttt cggcagctgg gagggcagcg gggcggaccg acgggatctc 60

gcgagattct cgcgcggtag gccctgagga cccagc 96

<210> 20
<211> 102
<212> DNA
<213> Homo sapiens

<400> 20
atataagcgt tggcggagcg tcggttgtag cactctgcgc gcccgctctt ctgctgctgt 60

ttgtctactt cctcctgctt ccccgccgcc gccgccgcca tc 102

<210> 21
<211> 339
<212> DNA
<213> Homo sapiens

<400> 21
gcccgcgtca cgggggcggg agtcagctga gctgccgggg cgaggttggg atcacctggc 60

accggctgaa gggagcctgt gatttttttg tagcgggggc ggggagtaag gtgcaagact 120

gcgccagatt caaggacgag ggctgcccga ttatctcgct gcataaggca agagcaagag 180

gatcctcagg attttaaaga ggaggcgacg gctgcaggtt cccaggatct gtcagaggct 240

ggggagttac agcttccatt ctggggcgac ggggaccccg ggggggtagc ccttttgtaa 300

tccccaggcc ccggacaaag agcccagagg ccgggcacc 339

<210> 22
<211> 92
<212> DNA
<213> Homo sapiens

<400> 22
aaggggcaga aggagaggcg ttacttcctg gagacttcag gtgtggtagc cggcgccgcg 60

cccatagccg gacggggatc tgagctggca gg 92

<210> 23
<211> 132
<212> DNA
<213> Homo sapiens

<400> 23
agctgggctt tgtggagcgc tgcggagggt gcgtgcgggc cgcggcagcc gaacaaagga 60

gcaggggcgc cgccgcaggg acccgccacc cacctcccgg ggccgcgcag cggcctctcg 120

tctactgcca cc 132

<210> 24
<211> 365
<212> DNA
<213> Homo sapiens

<400> 24
acggaaatga aaggagcact tccgggttcg gcaataacct ggagccggcg gcgtaggttg 60

gctctttagg gcttcacccc gaagctccac cttcgctccc gtctttctgg aaacaccgct 120

ttgatctcgg cggtgcggga caggtacctc ccggctgctg cgggtgccct ggatccagtc 180

ggctgcacca ggcgagcgag acccttccct ggtggaggct cagagttccg gcagggtgca 240

tccggcctgt gtgtggcgcg aggcagggaa gccggtaccc gggtcctggc cccagcgctg 300

acgttttctc tccccttttct tctctcttcg cggttgcggc gtcgcagacg ctagtgtgag 360

ccccc 365

<210> 25
<211> 88
<212> DNA
<213> Homo sapiens

<400> 25
ataagggcgg tgcggcactg cagctagcgc agttctcact gagacctgtc accccgactc 60

aacgtgagac gcaccgcccg gactcacc 88

<210> 26
<211> 254
<212> DNA
<213> Homo sapiens

<400> 26
cgggagcaag agagaaggag gcccagacag tgagggcagg agggagagaa gagacgcaga 60

aggagagcga gcgagagaga aagggttctg gattggaggg gagagcaagg gagggaggaa 120

ggcggtgaga gaggcggggg cctcgggagg gtgaaaggag ggaggagaag ggcggggcac 180

ggaggcccga gcgagggaca agactccgac tccagctctg actttttttcg cggctctcgg 240

cttccactgc agcc 254

<210> 27
<211> 57
<212> DNA

<213> Homo sapiens

<400> 27
ctacccgcct acccgcctac ccccctgccg gcctgccgtc cttccacgcg gagagcc 57

<210> 28
<211> 88
<212> DNA
<213> Homo sapiens

<400> 28
ggacagccgg gcaggcgggg ctgggcgcgg gcggcggcgg cccggaggag aacgggcgga 60

gggcgcgggc cgaccgggcg caccgacc 88

<210> 29
<211> 288
<212> DNA
<213> Homo sapiens

<400> 29
accggatgct cggcatgaac cactaggcgc ctggcggggg tgatctgtcg gagcgaccgg 60

cttggcgcct gcctgtcccc agcccctctc agcttgaact ccttccttca agtctgggcc 120

ctcgaggctt ccagagcggc ctccaggggt gcagtctcag ttccccacgc cagccgtctc 180

cgtcctccgc ctcctccggg cctggcaggt ggcactgtcc ggaggcggag ccttgggcga 240

ggggtggttg cggcggagga cgcaaccgag cgggcctgcg gcctcacc 288

<210> 30
<211> 298
<212> DNA
<213> Homo sapiens

<400> 30
agtaggaccc aggggccggg aggcgccggc agagggaggg gccgggggcc ggggaggttt 60

tgagggaggt ctttggcttt ttttggcgga gctggggcgc cctccggaag cgtttccaac 120

tttccagaag tttctcggga cgggcaggag ggggtgggga ctgccatata tagatcccgg 180

gagcagggga gcgggctaag agtagaatcg tgtcgcggct cgagagcgag agtcacgtcc 240

cggcgctagc ccagcccgac ccaggcccac cgtggtgcac gcaaaccact tcctggcc 298

<210> 31
<211> 184

<212> DNA
<213> Homo sapiens

<400> 31
cttttcccgg cacatgcgca ccgcagcggg tcgcgcgccc taaggagtgg cacttttaa 60

aagtgcagcc ggagaccagc ctacagccgc ctgcatctgt atccagcgcc aggtcccgcc 120

agtcccagct gcgcgcgccc cccagtcccg cacccgttcg gcccaggcta agttagccct 180

cacc 184

<210> 32
<211> 431
<212> DNA
<213> Homo sapiens

<400> 32
atatcccagg atcgcggcca atcgctgctc gtctctctcg aagcggatgg cttttgcctg 60

agaggaaagg gagtggctgg cggcgcatgc gccacggtgg ccgacttgaa ccgaggcttt 120

tattgctgta gtttatttcc acccccttcc ctcctgtttc tctctctcct tctctctctc 180

tctctctctc tctcttttt ttccgcccta gctggggctg tgttggagga gaggaagaaa 240

gagagacaga ggattgcatt catccgttac gttcttgaaa tttcctaata gcaagaccag 300

cgaagcggtt gcacccttt caatcttgca aaggaaaaaa acaaaacaaa acaaaaaaaa 360

cccaagtccc cttcccggca gtttttgcct taaagctgcc ctcttgaaat taatttttc 420

ccaggagaga g 431

<210> 33
<211> 123
<212> DNA
<213> Homo sapiens

<400> 33
aagtggccgt ggaggcggaa gtggcgcggc cgcggagggg cctggagtgc ggcggcggcg 60

ggacccggag caggagcggc ggcagcagcg actgggggcg gcggcggcgc gttggaggcg 120

gcc 123

<210> 34
<211> 20
<212> DNA
<213> Homo sapiens

<400> 34
ccggcggtga caacggcaac 20

<210> 35
<211> 21
<212> DNA
<213> Homo sapiens

<400> 35
agtctgggac gcgccgccgc c 21

<210> 36
<211> 27
<212> DNA
<213> Homo sapiens

<400> 36
ctgtgggtct gtaggttaag ggagaag 27

<210> 37
<211> 30
<212> DNA
<213> Homo sapiens

<400> 37
gcggtggcgc gagttggact gtgaagaaac 30

<210> 38
<211> 142
<212> DNA
<213> Homo sapiens

<400> 38
acgcacagcc cccctggggg ccgggggcgg ggccaggcta taaaccgccg gttaggggcc 60

gccatcccct cagagcgtcg ggatatcggg tggcggctcg ggacggagga cgcgctagtg 120

ttcttctgtg tggcagttca ga 142

<210> 39
<211> 78
<212> DNA
<213> Homo sapiens

<400> 39
gagcggttgc gcagtgaagg ctagacccgg tttactggaa ttgctctggc gatcgagggg 60

tcctagtaca ccgcaatc 78

<210> 40
<211> 117
<212> DNA
<213> Homo sapiens

<400> 40
gagagacggc agcggccccg gcctccctct ccgccgcgct tcagcctccc gctccgccgc 60

gctccagcct cgctctccgc cgcccgcacc gccgcccgcg ccctcaccag agcagcc 117

<210> 41
<211> 51
<212> DNA
<213> Homo sapiens

<400> 41
gtgacagagc gctttacgac agttgctttg aggcagtacc ggaggagaaa g 51

<210> 42
<211> 30
<212> DNA
<213> Homo sapiens

<400> 42
ctagatctgt gggcggggcg cggcctgtgg 30

<210> 43
<211> 136
<212> DNA
<213> Homo sapiens

<400> 43
gatgatttga gggacaagaa ttcagtgccc gggggccgaa aggcagcaga aggcgggcac 60

caaaggatag gcacccggaa ggtggactcc gaggaggaga gaggacaggg gtctctcacc 120

ccagctcctg gtcacc 136

<210> 44
<211> 88
<212> DNA
<213> Homo sapiens

<400> 44
ctacagatcc gccatattgt ctactgaaag ctgccgctga agctgccgcc gttgcctccg 60

ccgccaagag tgagcgagcg gacccgcg 88

<210> 45
<211> 65
<212> DNA
<213> Homo sapiens

<400> 45
ccgtcaactt agcgagcgca acaggctgcc gctgaggagc tggagctggt ggggactggg 60

ccgca 65

<210> 46
<211> 243
<212> DNA
<213> Homo sapiens

<400> 46
gagggaggga gctgcttccc cgcctgccgc gccaccagtc cgaccctcgg tcccgccgtg 60

tgagcagctg gtggagtgga gctcagcgcg gacgccggag ctgcggccgc cccctctgca 120

ggtgcctgtg aggaggcgcc cgggccgcaa ccgctttccg agatccccag tcgcgcactc 180

gctccccgcg ctcctgaggg gccgcccggc cggaggaggc cgtcgcgggg ctcggcgttc 240

agc 243

<210> 47
<211> 335
<212> DNA
<213> Homo sapiens

<400> 47
gaggaaggag ggggaaaggc accaaccagc agccgctcca gccctgccga agtttcactt 60

tttgtctgtg ggttcgttcc cgggtcccgc gcgagctttc ccgggataag tagctttagc 120

gatcgggaga cagccgggcg ctgcaagtgg gaactttgag gctcagagac agagcagaag 180

acagaacctg gtcttctgat tccctgtgtt ctgctttttt cattgttcca ctggacgctc 240

atcagaggga agatcttttt cctcaattgc attgcagttg gctgaacctt gtgtcaacca 300

tccattccag gagccagcta tctgagattc caaca 335

<210> 48
<211> 203
<212> DNA

<213> Homo sapiens

<400> 48
gggagaagga ggaggccggg ggaaggagga gacaggagga ggagggacca cggggtggag 60

gggagataga cccagcccag agctctgagt ggtttcctgt tgcctgtctc taaacccctc 120

cacattcccg cggtccttca gactgcccgg agagcgcgct ctgcctgccg cctgcctgcc 180

tgccactgag ggttcccagc acc 203

<210> 49
<211> 268
<212> DNA
<213> Homo sapiens

<400> 49
cttccgggag cccgcaagcg gcttccgggt gctcgcgcgc cgacctggac gcagagaagc 60

cagagacttt cgcttccggc tgccgcaggc gcttcgctgg tgcaggtaag ctccgcacac 120

tctcggccgg tcccgagtcc gactccctca agggtgacgc gagctctgcc ctttaaccgg 180

aaacgtctcc ctgctcaccc cacccccgcg cagacgcagt gctgagcaca cagctaccgg 240

acaaagagtg acgcccggag ctggagtt 268

<210> 50
<211> 155
<212> DNA
<213> Homo sapiens

<400> 50
gactccggag cccgagcccg gggcgggtgg acgcggactc gaacgcagtt gcttcgggac 60

ccaggacccc ctcgggcccg acccgccagg aaagactgag gccgcggcct gccccgcccg 120

gctccctgcg ccgccgccgc ctcccgggac agaag 155

<210> 51
<211> 167
<212> DNA
<213> Homo sapiens

<400> 51
acagaccact gcctgcaggt tggcgccacc acccccactc tccccgctgc tcgcgggagc 60

cagagggccc tgcggtcctc ggtggtcttg ccagcccctc gtcatcccag ggccctccgc 120

gcctgtgagg actccctcag gtcggccacg ggacctgacg caacagg 167

<210> 52
<211> 209
<212> DNA
<213> Homo sapiens

<400> 52
ggccggacgc ctccgcgtta cgggatgaat taacggcggg ttccgcacgg aggttgtgac 60

ccctacggag ccccagcttg cccacgcacc ccactcggcg tcgcgcggcg tgccctgctt 120

gtcacaggtg ggaggctgga actatcaggc tgaaaaacag agtgggtact ctcttctggg 180

aagctggcaa caaatggatg atgtgatat 209

<210> 53
<211> 94
<212> DNA
<213> Homo sapiens

<400> 53
gcggtggacg cgccggcttc gagcatccct agccgggcag gtgggaggca cggggttgcg 60

gatcccgcgg ccgcggttcg gacccgccgg cgac 94

<210> 54
<211> 76
<212> DNA
<213> Homo sapiens

<400> 54
ggaagcgctc gcgcaggaga ccccgggtga cggggcccgg cgccgctaac tggagcgaac 60

cccagcgtcc gccgac 76

<210> 55
<211> 261
<212> DNA
<213> Homo sapiens

<400> 55
ccttcctccg ccttctgggc ggagcccgcg cgggatccgg gtggctgcag gctgctggct 60

tctgcggctg cggggtcggg gtcgcggcca gggccaagcc gcagcgagtt cacaggcgga 120

acccctgcag gcggcgcccc ctacgcgagg tcacccctgg gaaggagcgc agcccacccg 180

gcccctccgc atccgagcag gacgcccgtc tcctctccct gaggatttca ggtctccctg 240

tcccaggagg cttgtgccaa g 261

<210> 56
<211> 241
<212> DNA
<213> Homo sapiens

<400> 56
gcctagtctc catataaaag cggcgccgcc tccccgccct ctctcactcc ccgctcctct 60

ccgccgcgca ctctccgcgg cgctgggaga gggcggaggg ggaggcggcg cgcggcgcca 120

gaggaggggg gacgcagggg gcggagcgga gacagtacct tcggagataa tcctttctcc 180

tgccgcagtg gagaggagcg gccggagcga gacacttcgc cgaggcacag cagccggcag 240

g 241

<210> 57
<211> 124
<212> DNA
<213> Homo sapiens

<400> 57
gcacttccgg cgcgaaccgc tacttccggt gcgaaccgcc tcggccgttc cctcgcggag 60

cttactgagc gcggccgccg agcccagctc cgccgccgag cgcctgtgcc ggcacggcta 120

cacc 124

<210> 58
<211> 33
<212> DNA
<213> Homo sapiens

<400> 58
gtctcctggt ggggtgcaag gagccgaggc gag 33

<210> 59
<211> 71
<212> DNA
<213> Homo sapiens

<400> 59
ggcggggttc ggccgggagc gcaggggcgg cagtgcgcgc ctagcagtgt cccagccggg 60

ttcgtgtcgc c 71

<210> 60
<211> 245
<212> DNA
<213> Homo sapiens

<400> 60
accacagagc cgcgagaaga ggacagagga gactgagcaa agggggtgg gctccaggcg 60

acccctagcc caattctgcc cctccatccc aaggggcaga gaaattgtct ttctttgctg 120

actcctacga ggaaaaaaaa aaaaaaaaaa aaaacaatta aagggaaaga taaacggaga 180

cggaggaaag gtggcagcca gattacttag agaggcacag aggagagaga tcggggtgag 240

tcgcc 245

<210> 61
<211> 198
<212> DNA
<213> Homo sapiens

<400> 61
gacctagaga ggtcccagga cacgccactg tcccgccttc cccattgccc gccccactgg 60

ccagtcccca cgcccacaca cccaaggctg ccccatctgg cgctgattat cctgctgctg 120

ccgccaccgc tgctgctgct ctgcaaaatt cagctgctgc ctctgtcttg aggaccccag 180

cgcctttccc ccggggcc 198

<210> 62
<211> 9
<212> DNA
<213> Homo sapiens

<400> 62
ggcccgaag 9

<210> 63
<211> 149
<212> DNA
<213> Homo sapiens

<400> 63
gagcaaacag agcagcagaa aaggcagttc ctcttctcca gtgccctcct tccctgtctc 60

tgcctctccc tcccttcctc aggcatcaga gcggagactt cagggagacc agagcccagc 120

ttgccaggca ctgagctaga agccctgcc 149

<210> 64
<211> 116
<212> DNA
<213> Homo sapiens

<400> 64
attcccatta gccccgcccc tttgggctgg aaccggaggt gtcgctcttc ggacctcaag 60

gttcccctta acacagagcg ccccgcagtc ttcgcggaaa gcgttcgggg taggcg 116

<210> 65
<211> 80
<212> DNA
<213> Homo sapiens

<400> 65
ttagccaacg gggcaagggg ggcgggaagg aggtggggtt tctcccagcc aatcgacggg 60

cgcgccctcg ttgccgctct 80

<210> 66
<211> 88
<212> DNA
<213> Homo sapiens

<400> 66
ctacagatcc gccatattgt ctactgaaag ctgccgctga agctgccgcc gttgcctccg 60

ccgccaagag tgagcgagcg gacccgcg 88

<210> 67
<211> 157
<212> DNA
<213> Homo sapiens

<400> 67
gtttttaccc aggcctcggc gcctaggcgc ttcgccgagg ctgatcttcg ttcaagtgtg 60

agctgcggct gagcccagcg ctcgaggcgc gaggcagcca ggagggcccg tgcggcgcgg 120

ggagccagcg agcgcgcctt cggcattggc cgccgcg 157

<210> 68
<211> 133
<212> DNA
<213> Homo sapiens

<400> 68

tgagttgctg ccttggccag agtccggagc agccgccgcc cgaccacgcc gagctcagtt 60

cgctgtccgc gccggctccc accccggccc gaccccgacc cggcccggtc aggccccata 120

ctcagtagcc acg 133

<210> 69
<211> 90
<212> DNA
<213> Homo sapiens

<400> 69
ggattgagct gaccacaggc cacaccagac tcctctctgc tcctgaggaa gacagggcag 60

cccggcgcca cccgctcggc cctcacgaag 90

<210> 70
<211> 88
<212> DNA
<213> Homo sapiens

<400> 70
ggacagccgg gcaggcgggg ctgggcgcgg gcggcggcgg cccggaggag aacgggcgga 60

gggcgcgggc cgaccgggcg caccgacc 88

<210> 71
<211> 147
<212> DNA
<213> Homo sapiens

<400> 71
acgcgtgcgc ggtgggcgga gcgcggctct cctaccttct cgggcagccc agtctttgcc 60

atccttgccc agccggtgtg gtgcttgtgt gtcacagcct tgtagccggg agtcgctgcc 120

gagtgggcgc tcagttttcg ggtcgtc 147

<210> 72
<211> 153
<212> DNA
<213> Homo sapiens

<400> 72
cattggctcc gaggacttag gacctgttag cttggttggg cgactggcaa atccttcctt 60

ccccggggta gaagtccagg gtgagaaatt ggttccgaac tcaaaggaac ccagtgccgg 120

gccacagccg ggtcacgtgg ccggcggccc ccc 153

<210> 73
<211> 232
<212> DNA
<213> Mus musculus

<400> 73
ctctctccct ctttcttttt tccgccctag ctggatctgt gttggaggag aggaaaagag 60

acagaggatt gcatctgttt tgaaatctcc taatagcaag accagttaag ggattgtacc 120

tttttcctac aaatataaat atatatatat tttaaaccaa gtctttttt ttccggctat 180

ctttgcttta aagctgtcct cttgagatta cttcctcccg ccccccggag ag 232

<210> 74
<211> 232
<212> DNA
<213> Mus musculus

<400> 74
ttttctctgc ccggctttga tctctgctta acaacagtaa cgtcacacgg actacagggg 60

agttttgttg aagttgcaaa gtcctgcagc ctccagaggg ctgtcggcgc agtagcagag 120

agctacagac tccgcgcgct ccggagaccg gcagtacagc gcgaggcagc gcgcgtcagc 180

agccgccacc ggagcccaac cgagaccaca gccctcccca gacggccgcg cc 232

<210> 75
<211> 147
<212> DNA
<213> Mus musculus

<400> 75
cgctgtccca ggacagaggt gagtcaagag tttagtccca ggccagccag agaactgaca 60

gaacatacca aaggttcttg gtacctcccg gtgctcagag cagaccctaa aggaagccaa 120

gtccttcctg agacaggcag atccagg 147

<210> 76
<211> 122
<212> DNA
<213> Mus musculus

<400> 76
gagcgcgcgc cccgccgagc gcccgcccgc cgggggcctg agcgctgggg cgcgtgcgcg 60

agcggtgcag caccggccgc gggagcaggg agtattatgg gctgtgggtg ccgctgagca 120

ag 122

<210> 77
<211> 61
<212> DNA
<213> Mus musculus

<400> 77
agttccgtgg agactgcgag ttccgtctgc tgtgtgagga ctgccgccac caccgctgac 60

g 61

<210> 78
<211> 202
<212> DNA
<213> Mus musculus

<400> 78
gcagactcct cccccgcctg gaaacctcgc ccctagtact gggaatgact ctgggcgtgc 60

ggcgtagttt gcagccggga caccgtgagg cttgcgagcc cagattcgca gccgagacac 120

cgtggggccc gcgatccagt gtttgcagcg ggaacatttc ggggtctgtg atccgagtga 180

ggacgcaacg cagaagctaa gg 202

<210> 79
<211> 91
<212> DNA
<213> Mus musculus

<400> 79
ggccgggcca gccgctaaat tccgagatca agcttccaga tcctgggagt agatcaagcg 60

tgtccaggtt ggagagctgc cctgtcagac t 91

<210> 80
<211> 54
<212> DNA
<213> Mus musculus

<400> 80
gagcgccaac cgctagaggc cgatccggag cgtgctgccc ggtcaccacc cgcc 54

<210> 81
<211> 63

<212> DNA
<213> Mus musculus

<400> 81
ccacagggcc agttccaggg gttcatccac aagagagaaa aacatagact cacggctgcc 60

aac 63

<210> 82
<211> 48
<212> DNA
<213> Mus musculus

<400> 82
gagtgcgaca gctaggccag gcgacagcgc tgcctaccag agcgcagc 48

<210> 83
<211> 93
<212> DNA
<213> Mus musculus

<400> 83
agaaggaaaa ggggtggagc taagcactca ctgcggtttt gcgctgcgtc tgcagaggac 60

aaggaaagct ctgcagggct gtcagctgcc aaa 93

<210> 84
<211> 159
<212> DNA
<213> Mus musculus

<400> 84
gggcgcttgg cttgcaagga ccctgagctg cggcattgaa gcacacccaa cccaactcga 60

ctgaagtcag cctcactgaa ccggatctga gaatcttctc tctctgggct tgccagggct 120

ctccgaacct agctagcatc ctcttcaatt ccaactaga 159

<210> 85
<211> 55
<212> DNA
<213> Mus musculus

<400> 85
cgcgaaggct gtaaaagccg cgcaggatgg aagtccagac actgaatccg cggct 55

<210> 86
<211> 105

<212> DNA
<213> Mus musculus

<400> 86
gagtctcgcg ctgtggttcg tcggcgcacc gctgatccgc tccacgcctt gcgctctccg 60

ctctcagcca aagcccggca gccccggcca cgcagctccg caacc 105

<210> 87
<211> 108
<212> DNA
<213> Mus musculus

<400> 87
ctcctgtcgg gcggaagtag gaggagtaga gtttaaaaac agtactcttt ttccggttcg 60

ggacgtagtt gaagcaacga caagccggat aaccgctctt gagacagg 108

<210> 88
<211> 176
<212> DNA
<213> Mus musculus

<400> 88
gtacttagct ggtcctgggg cagcagcggg aagggactga agaggggtgc tgaggtgaaa 60

gattggaaga cccggaaaga tcagctagat ttcggaaacc agaaacaccc tcggggagac 120

ctggggctcc cggcgcgcga cgatttcctc gcactagctg ggagagcgtt gatccc 176

<210> 89
<211> 275
<212> DNA
<213> Mus musculus

<400> 89
tgcctgagcg agagaggaga gcgagctgag gagagccggg cagttcggag ggaaggaccg 60

gtgcgagtca ggcggccctt gaggctccgc tcgcccacct tccactcttc tctctctctc 120

tccctctctc tctttgccat ttctttcctc tcccaaatct cccattcagc caaaggaagg 180

aggtaaggga agcactcccc gacccccccg cacctccaaa aaataataat aataaaaaaa 240

atttacagtc gggaccgagt ggtggccggc tggct 275

<210> 90
<211> 146
<212> DNA

<213> Mus musculus

<400> 90
cggaactggg gctattaggg agcctgcagg tcttcctgga aagtcgcaag cctgtgttag 60

gaagtcgccc tgcgatcgcg ccgcctgggg tttttctgtc cctttgtcct cgtttatgta 120

cgaagctgcc agcgggccat agaaac 146

<210> 91
<211> 173
<212> DNA
<213> Mus musculus

<400> 91
gaaaagactg tctactcctg cgtctcggtg gcgtctttct cccgcgcctg cacgaactga 60

ggttttgcgt ggcggcggcg gcaccggcag cggcagcgtc tctcacttga acgccgcgag 120

cggcagcttc tcgtctgtgt cctgacctcg gagcctacga gcagagcggc gcg 173

<210> 92
<211> 77
<212> DNA
<213> Mus musculus

<400> 92
gcagcggcgt cccgtccagt tcgcctgccg cgctcctcgc ttgtcgtctg cctccagagc 60

ccagacagag aagagcc 77

<210> 93
<211> 184
<212> DNA
<213> Mus musculus

<400> 93
cccggcgctg cccgagtcgg gtgggtcggt ggctataaag ctgcggaggg cgggaggcac 60

agtctgcggt ctccttgctt tgctcgttct tcttccaggg tctgatcccc tttggtggct 120

gaaggaggaa ccggtgaccg acctggagac cacagttctc tgtccttcac acagctcttt 180

cacc 184

<210> 94
<211> 335
<212> DNA
<213> Mus musculus

<400> 94
taggcggctc ggtgctaagg gatgagtgag acgtagctcg gcctctcccc agcaagttct 60

cgccggcact ggttcagatt cagaaaggga gccaggagcg aggctcagca gaccccggcg 120

ggtagaactc cggggctgtg aagcgctccc gcgtgtccga ctcttggagt caccgcagct 180

acagaagcgt cagaagtcta gttcgccagg ggtgccagtc ggctccagag tctctggtca 240

ctcaagtcca gcgcagcgac cctcacagac gcgctctgcc ctgggaccgc ggcggaacaa 300

gatatttgaa atcattgcgg ttcccagcga cagaa 335

<210> 95
<211> 300
<212> DNA
<213> Mus musculus

<400> 95
gcccgcctct cgccgccctc ctcctcggcc cgcccgccgc tctgagcagc ccgagaggaa 60

acaaagtgct gcgggcggga gactcgcgtc cgccgcgcac agccgtctgc gtctcccggc 120

tgccctggcc tcttcccgcg cgcgtctgcg agtgtgcgtg tacactcaca aagggcgtct 180

ggcgggcgat cgcggccctc ccgcttcgct ctttgtgcgg tagccccgcc gccaccgcca 240

gcccaggtcc gctcgatcct caccggcctg tggtttgtac cttcggtccc gccgcccgcc 300

<210> 96
<211> 45
<212> DNA
<213> Mus musculus

<400> 96
ccggcttttc tgcgcgcgcg ggtctctccg gcctaggaga ccgcg 45

<210> 97
<211> 109
<212> DNA
<213> Mus musculus

<400> 97
gcttcggcag gggcacttcc ggcgcgaccg gcctagactg tcaccctgtt agccgccgct 60

gagcctccgc taactacccg gcgcctgctg ctgccctccc ggccacgcc 109

<210> 98

<211> 131
<212> DNA
<213> Mus musculus

<400> 98
aacaaagctg ttcctcgtgg gcggagttgt gctctccagc cgcaggagtc ttgctgcgcg 60

ggtgggtaga agctgggatc agagaagcgg cgaggcagac agtcttcgga catagactga 120

ctctgcttgt c 131

<210> 99
<211> 235
<212> DNA
<213> Mus musculus

<400> 99
tgtgcccgtt gagtttgaat tgggtggcgg ttaaccgagg agccgcccgt cccttagttg 60

gagctgtgag ggttcctcag actgtgtttt gggacctgca ggtaggtttc ggcagagttc 120

tggaaaccta gactccaacg actgaacttt ctcagctctc cgaccgctca caccctctcc 180

ccgtctcagt cgcggagccg gctgcttggc ccctcgctcg acgcagccag gcgcc 235

<210> 100
<211> 280
<212> DNA
<213> Mus musculus

<400> 100
ggtgccctgg aagctgacgc gcagcactgg ccgtggccgt ggggcccgcg gagggcggcg 60

cgcggctgat gaaaccggct cggattccgc ccgcgtgcgc catcccctca gctagcaggt 120

gtgagaggct ttctacccgc ggtctccaca cagctcaaca tcttgccgcc tcctccgagc 180

ctgaagctac cgtggactct gctgtggcgt cttggccccc aggtgcggat cctccccagt 240

gagaagtccc acgagtctta cagcagattc gctcagcaca 280

<210> 101
<211> 222
<212> DNA
<213> Mus musculus

<400> 101
cggagacggc ctgcaggacc tgctctctca gccctcagcc gaggcctacg ccgagccgag 60

tgcgcagccg acgaccggga ggagccgcag ccttcaactc tgaggtactg tgatccgcgc 120

tgcccgccgg gccgccccag tccgctgctg cggcacctcc ttccctcgcg ccctcttcgc 180

tcgccagcgc cttccctgtg agcctgcgtc accgcggccg cc 222

<210> 102
<211> 108
<212> DNA
<213> Mus musculus

<400> 102
agcccaggcc accgcagcag cagcagcaac agccgcagca acggtagcag tagtctgcat 60

cgcagtccct ttctccttct ccagcgcgct cctcagtccc cggtcacc 108

<210> 103
<211> 124
<212> DNA
<213> Mus musculus

<400> 103
ctctttcact cgaacttcac gggggcaatt ttctcgcgca cgcgttctaa gagcagctgg 60

ttttcgaccc cggtactaca ccgatacaga gttagtggct agtcctcctg tgcctcctgt 120

agcg 124

<210> 104
<211> 19
<212> DNA
<213> Mus musculus

<400> 104
ggccgaagaa gggaaggct 19

<210> 105
<211> 318
<212> DNA
<213> Mus musculus

<400> 105
ggagattcga aagcgtccgg gtcgcggggt aaaccggttc tccgtgtgcg agcgcctagt 60

ggcgtaggct gcggctttgc ggggaactgc gggggctgca gtggtccacg gggctgatcg 120

ggttccgttg ggcggatcca cgtgcccgct atccgcctgg aaggagaggt gcaggagtac 180

ccccgacctt ggctgcgtgc tgactcgctt ccttctgccc gcccaggctt gcactccccg 240

gggatctgcc tctgcatctc ttgccttcgc tgttgtttcc ctctctgtcc agctcccctc 300

ccgctctcgc cctggaga 318

<210> 106
<211> 198
<212> DNA
<213> Mus musculus

<400> 106
gtcacttcgc gcaggcgcac ttcgaaaggc gcgcttttcg gtggctgcgg tcccggcagg 60

gagcacagct catcctgtgc tgataacatc gagaagtgtt cagtgcctgg taaagtacat 120

agaccttgct tcacttggaa ctcggccttg atttctgccg ttggtcataa tcagcagagt 180

tctctctaaa cctttgac 198

<210> 107
<211> 175
<212> DNA
<213> Mus musculus

<400> 107
agtcgtgctt cagctcacta cgcttagggc tctggcttgc cgctcccgcc tgctctccag 60

cgccccgcgc agcgagccac gtggaccaac tccggcgcgc ggtgttcgct tggttccagt 120

ggggctcgcc gcgcctcccg cgtctgcgtg cttgccctgt ctcagctccg acccg 175

<210> 108
<211> 219
<212> DNA
<213> Mus musculus

<400> 108
gtgtcgtccg gggcgctgaa attcaaattt tgaacggccg tggtagccta ccgactccgt 60

gggtgcggag ggcagagccg actgggtgtg agagcgcccg ccgcctcgac tgcagtcctc 120

ctccaggagc tgcgccgagc ctgcactcac ttctttcctc ttcctgagtt tgaaccgtcg 180

gacccaccgt ctagccgtcc actggtgagg cctggggcg 219

<210> 109
<211> 217
<212> DNA
<213> Mus musculus

<400> 109
gggaattcca cgccacctcc gcgcgctctg cgctctggga tccggagcga ccaggacctg 60

gtgagaccct cagctcccct ccaccttccc cgaggtccag cacaccagaa ctggaacctg 120

agcagcccag aagccagggt ggcaccactg tgtctctcct gtctgaagac ccggatattt 180

tctcagactt ggcgacacgt tcctttaaaa gatcagc 217

<210> 110
<211> 87
<212> DNA
<213> Mus musculus

<400> 110
aaagaccacg ccccagtgac gtcacgcggc ggttaccgcg cttggcgctc gcgatttaaa 60

acttactccg gagacgtgga gagcaag 87

<210> 111
<211> 33
<212> DNA
<213> Mus musculus

<400> 111
agccaaagca acacctcgca ctcctgcccc agc 33

<210> 112
<211> 69
<212> DNA
<213> Mus musculus

<400> 112
gcctcgcgag agcacgtgga gagcgcgcca aattctcccc ggagcctgag ggagctttgg 60

agcgtcgca 69

<210> 113
<211> 237
<212> DNA
<213> Mus musculus

<400> 113
aattggggtg gaagtctccc gcagcagcct gtgcacacta ataaaaacgc cctgagtttt 60

cgcgggaaaa aaagtcctag cagctggaag gaacccgcgc tctagtgctc acttgggtct 120

tcagccactc acgcggctcc cttctgggtc acccagccgc agagccctag cctagaacca 180

ggcgttccaa gggagaggag agtgcggatc gccgccgtga gagagtacat cggcatc 237

<210> 114
<211> 232
<212> DNA
<213> Mus musculus

<400> 114
ttttaaaagc tctgtgctcc aagttaaaaa acgcttttac gaggtatcag cacttttctt 60

tcattggggg aaaggcgtga gggaagtacc caacagcagc agactttgaa actttaaaca 120

gacaggtctg agagcccgaa ctctcctttt cctttgactt cagcctccaa ggagttccac 180

cactttggcg tgccggcttc actttcatta agtgaaagag aggtgcccag ac 232

<210> 115
<211> 85
<212> DNA
<213> Mus musculus

<400> 115
cggtgggcta ggagagggtg ttgatcttcg ggtccgggta tcgagcaggg aggatctagc 60

gggcagcgga aactggacca agcac 85

<210> 116
<211> 133
<212> DNA
<213> Mus musculus

<400> 116
tgacgttgta gggaggctgg cgcgcgggat ttaaactgca gcggtttagg cgttgttaac 60

acagcgcagt attagcagag tcgtggtttc caagcttctt tcatttgtgt tgcctgttgt 120

tgttcctgag tcc 133

<210> 117
<211> 148
<212> DNA
<213> Mus musculus

<400> 117
cactggagga ggagcttgca gctctccagc tctggcttat acagttcaca gagaagccaa 60

gggacaccgg gacaccgtta ttttaggact gtaacctgtt cagagagacc ctggccactg 120

ctctccgtgg ttttctccaa ttgtgtgg 148

<210> 118
<211> 90
<212> DNA
<213> Mus musculus

<400> 118
ttcatttccg gccaccgagg agcttcgcgg gtcgagacgc aggcgaggcg ccggactgcg 60

aaacaaaggg ggacgccaac agccgtagtc 90

<210> 119
<211> 137
<212> DNA
<213> Mus musculus

<400> 119
ttatatgtcc agctggaagc ctggctgtcc ctagaaaagc tggaagcctg actgcccctc 60

aaaagacctg ctctttagga gagctagata ttgtttactg aagacaagtg tgaaaactgg 120

gaacctcagt ctccatc 137

<210> 120
<211> 41
<212> DNA
<213> Mus musculus

<400> 120
aaatggtcgt cgagggaagg cgcctcatcg cgccgtgaat t 41

<210> 121
<211> 19
<212> DNA
<213> Mus musculus

<400> 121
aagacaggca gaaggaccc 19

<210> 122
<211> 184
<212> DNA
<213> Mus musculus

<400> 122
aagggaggga aaagttccct gcgcggagag ccgggcaggc gcacgctctt acggcggccg 60

cagcggcagg gcggggccgg tggggcgggc ggaggaagac ccctgattgc cacctcgcct 120

ccctcagtgt ctctcttaga ccttggtcac gtaccggggt ccggaggact tgtgtacagc 180

ggca 184

<210> 123
<211> 79
<212> DNA
<213> Mus musculus

<400> 123
agcgcgcatc cccagtgccc tgagctgcag agagctcgga ggagcgcggg agcagcgaca 60

ccggagtgga caaagcaag 79

<210> 124
<211> 25
<212> DNA
<213> Mus musculus

<400> 124
agcctgctgt ggtcaatccc tgaag 25

<210> 125
<211> 26
<212> DNA
<213> Mus musculus

<400> 125
gtagagagga ctttggatca ttctaa 26

<210> 126
<211> 90
<212> DNA
<213> Mus musculus

<400> 126
aattttgttg cctggtgcag caggtagcag tgaaacctct gaggcgtttg gtgctccggt 60

aaccaccacg gctgtagagc gagtgttgcc 90

<210> 127
<211> 87
<212> DNA
<213> Mus musculus

<400> 127
cagaaactcc gatcgccttt cccaacccga aagtgcgcgt cggccgagcc tggagggacc 60

cagctgaagc ctggcctggg agccagg 87

<210> 128
<211> 275
<212> DNA
<213> Mus musculus

<400> 128
agatcacgtg acgagagcgc gggctttgga aggcggcgaa gctgggaacg atactgaaag 60

aacgggctcg ggactgtcca gagaacgctg tggactccaa accactgcta gctgcttaag 120

gctcgtgcac tcgagacggg gtgaggtctc gcggaagcgt ctctgaaagc ggcagagccg 180

cgggaacagc accgggcagc ccgggcttgg gccattcgct ctgctccgaa cattcctctt 240

cgccggtagg aagaagccat tgctcctgtg ctacc 275

<210> 129
<211> 86
<212> DNA
<213> Mus musculus

<400> 129
gacttgcgac ttgcgactcg gtgctgtcca gattcagcac gctctgttcc ttcgccttac 60

aagtccaggc acccagcccc gccgcg 86

<210> 130
<211> 77
<212> DNA
<213> Mus musculus

<400> 130
gaaggcattg tcaaggagcc cagagtgtag gaactggcat tgacccggac gaccggacca 60

ttgacccgcc gctggat 77

<210> 131
<211> 112
<212> DNA
<213> Mus musculus

<400> 131
cggctctgtg ggcagggccc ggacaaggtg gagccctgtc ggcttactgg tcccagtccc 60

atcctcgcta ctccagcaca cgtgacctcc gccgccgctg ctaacctgca cc 112

<210> 132
<211> 319
<212> DNA
<213> Mus musculus

<400> 132
cgctgctcac ttctcagggc cgagtctacc taggtgaaaa ctatctcttt tgaggggaag 60

cgacacctag gagtagcatt gagagtactg caagagtctc aggcccacgc gtattctgtg 120

gctcccttcg ctttacctgt gctcgcggtc gccctcgttg ccccggaaag gagcctctcg 180

gctgaaggag ggacgccgag gcgaggcggc gcctctgcgc ttgcgcttat atggtggctc 240

gaaggagcca aaggcaaagt ctcgggtgac agctgcgagc cccacccttt ccccacgtgg 300

ctgcgtagac ccggcagtg 319

<210> 133
<211> 145
<212> DNA
<213> Mus musculus

<400> 133
aacattcctt gagaaagaga gaacaagata agcagtggtg cacttcctcc ttcattgctg 60

ctgagaatgt tccaggctga gtgagaagta aaaattcatc atctctgaag aactcttacc 120

cagccctgtt gaagaaattc ccaga 145

<210> 134
<211> 151
<212> DNA
<213> Mus musculus

<400> 134
ccttcggaga atcctgtgcg cgtgcgttct tgtgggaact gcgcctccca gaaggcaccg 60

cgcgtcgtcc ttctccctcc ctgaaggccg cctcgcttgc ccagtgtgtc ggccgcccgc 120

gaagctagag tccactgact tttccgccac c 151

<210> 135
<211> 65
<212> DNA
<213> Mus musculus

<400> 135
gcggagtggg cgggggaaca cctcgcccga ggcagtgagg gaccaggctc tccaaggaca 60

gaaaa 65

<210> 136
<211> 108
<212> DNA
<213> Mus musculus

<400> 136
cccaacctgc agatgaggaa gaggaagcgg gagacagacg gacagacgga cggacacaga 60

cgctgcgccc aggcctcacc atccatcgca ggaagccccc tgtctcag 108

<210> 137
<211> 103
<212> DNA
<213> Artificial Sequence

<220>
<223> Artificial nucleic acid construct

<400> 137
atcttagctt ctctgtcttc ctccctccct cccttcctct tactctcatt catttcatac 60

acactggctc acacatctac tctctctctc tatctctctc aga 103

<210> 138
<211> 259
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 138
atcacagccc ttccccgatc ctctccgtgg gagccagcga gcctctctcc ctgatcttac 60

gtgctcaagg gagctcacac gttcaccaac tcacccttga agtcatctca agaacaaaag 120

acaactgaaa gaagctgttg tgaaggcaga gcagcatctg ctgaagagac agaaaccagc 180

cccagaggtg tcacaggaag gcaccagcaa ggacattggt ctttgatttg attcagcagt 240

cctgtcaagt ataatagtg 259

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

<220>
<223> artificial nucleic acid sequence

<400> 139
tagggctgga gctccgggca gtgtgcgagg cgcacgcaca ggagcctgca ctctgcgtcc 60

cgcaccccag cagccgcgcc 80

<210> 140
<211> 101
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 140
cagtcgtccc tgcgcgtcgt cctcctcgcc ctccaggccg cccgcgccgc gccggagtcc 60

gctgtccgcc agctacccgc ttcctgccgc ccgccgctgc c 101

<210> 141
<211> 110
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 141
taggcggacc tccggaaacc gtagattccg ggcggtcgga gccgccggga gctgtagttc 60

tcccgcggct cagagaagta ggcagagagc ggacctggcg gccgggcagc 110

<210> 142
<211> 291
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 142
accggtagta gctcggctag aaccactagg cgcctggcgg gggtgatctg tcggagcgac 60

cggcttggcg cctgcctgtc cccagcccct ctcagcttga actccttcct tcaagtctgg 120

gccctcgagg cttccagagc ggcctccagg ggtgcagtct cagttcccca cgccagccgt 180

ctccgtcctc cgcctcctcc gggcctggca ggtggcactg tccggaggcg gagccttggg 240

cgaggggtgg ttgcggcgga ggacgcaacc gagcgggcct gcggcctcac c 291

<210> 143
<211> 184
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 143
cttttcccgg cactagcgca ccgcagcggg tcgcgcgccc taaggagtgg cacttttaa 60

aagtgcagcc ggagaccagc ctacagccgc ctgcatctgt atccagcgcc aggtcccgcc 120

agtcccagct gcgcgcgccc cccagtcccg cacccgttcg gcccaggcta agttagccct 180

cacc 184

<210> 144
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 144
cttgatctgt gggcggggcg cggcctgtgg 30

<210> 145
<211> 136
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 145
gtagatttga gggacaacaa ttcagtgccc gggggccgaa aggcagcaga aggcgggcac 60

caaaggatag gcacccggaa ggtggactcc gaggaggaga gaggacaggg gtctctcacc 120

ccagctcctg gtcacc 136

<210> 146
<211> 209

<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 146
ggccggacgc ctccgcgtta cgggatgaat taacggcggg ttccgcacgg aggttgtgac 60

ccctacggag ccccagcttg cccacgcacc ccactcggcg tcgcgcggcg tgccctgctt 120

gtcacaggtg ggaggctgga actatcaggc tgaaaaacag agtgggtact ctcttctggg 180

aagctggcaa caataggtag tagtgatat 209

<210> 147
<211> 217
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 147
ggcaattcca cgccacctcc gcgcgctctg cgctctggga tccggagcga ccaggacctg 60

gtgagaccct cagctcccct ccaccttccc cgaggtccag cacaccagaa ctggaacctg 120

agcagcccag aagccagggt ggcaccactg tgtctctcct gtctgaagac ccggatattt 180

tctcagactt ggcgacacgt tcctttaaaa gatcagc 217

<210> 148
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 148
aaagaccacg ccccagtcac gtcacgcggc ggttaccgcg cttggcgctc gcgatttaaa 60

acttactccg gagacgtgga gagcaag 87

<210> 149
<211> 137
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 149
ttattagtcc agctggaagc ctggctgtcc ctagaaaagc tggaagcctg actgcccctc 60

aaaagacctg ctctttagga gagctagata ttgtttactg aagacaagtg tgaaaactgg 120

gaacctcagt ctccatc 137

<210> 150
<211> 41
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid construct

<400> 150
aataggtcgt cgagggaagg cgcctcatcg cgccgtgaat t 41

<210> 151
<211> 108
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 151
cccaacctgc agtagaggaa gaggaagcgg gagacagacg gacagacgga cggacacaga 60

cgctgcgccc aggcctcacc atccatcgca ggaagccccc tgtctcag 108

<210> 152
<211> 100
<212> DNA
<213> Homo sapiens

<400> 152
cgccgccgcc gccgccgccg gagcctgtcg ccgtcctgtc cccagcctgc ttgtgtcccg 60

tgaggttgtc aataaacctg ccctcgggct gccgcctccc 100

<210> 153
<211> 185
<212> DNA
<213> Homo sapiens

<400> 153
ccttggagct cactggtccc tgcctctggg gcttttctga agaaacccac ccactgtgat 60

caatagggag agaaaatcca cattcttggg ctgaacgcgg gcctctgaca ctgcttacac 120

tgcactctga ccctgtagta cagcaataac cgtctaataa agagcctacc cccaactcct 180

tctgc 185

<210> 154
<211> 250
<212> DNA
<213> Homo sapiens

<400> 154
gtgcccggcc caccagggac tgcagctgca ccagcaggtg ccatcacgct tgtgatgtgg 60

tggccgtcac gctttcatga ccactgggcc tgctagtctg tcagggcctt ggcccagggg 120

tcagcagagc ttcagaggtg gccccacctg agcccccacc cgggagcagt gtcctgtgct 180

ttctgcatgc ttagagcatg ttcttggaac atggaatttt ataagctgaa taaagttttt 240

gacttccttt 250

<210> 155
<211> 387
<212> DNA
<213> Homo sapiens

<400> 155
gcggtgcgta cccggtgtcc cgaggcccgg ccaggggctg ggcagggatg ccaggtgggc 60

ccagccagct cctggggtcc cggccacctg gggaagccgc gcctgccaag gaggccacca 120

gagggcagtg caggcttctg cctgggcccc aggccctgcc tgtgttgaaa gctctgggga 180

ctgggccagg gaagctcctc ctcagctttg agctgtggct gccacccatg gggctctcct 240

tccgcctctc aagatccccc cagcctgacg ggccgcttac catcccctct gccctgcaga 300

gccagccgcc aaggttgacc tcagcttcgg agccacctct ggatgaactg cccccagccc 360

ccgccccatt aaagacccgg aagcctg 387

<210> 156
<211> 46
<212> DNA
<213> Homo sapiens

<400> 156
ccacccagcc acccatgtcc agaataaaac cctcctctgc ccacac 46

<210> 157
<211> 151
<212> DNA
<213> Homo sapiens

<400> 157
agccttcagt cactggggaa agcagggaag cagtgtgaac tctttattca ctcccagcct 60

gtcctgtggc ctgtcccact gtgtgcactt gctgttttcc ctgtccacat ccatgctgta 120

cagacaccac cattaaagca ttttcatagt g 151

<210> 158
<211> 73
<212> DNA
<213> Homo sapiens

<400> 158
agcagctgcc tggagcctat tcactatgtt tattgcaaaa tcctttcgaa ataaacagtt 60

tccttgcacg gtt 73

<210> 159
<211> 83
<212> DNA
<213> Homo sapiens

<400> 159
gcgccccgcc tcgctcggct gcccccgccc cttcccggcc cccctcgccg cgcgtcctcc 60

aaaaaataaa accttaaccg cgg 83

<210> 160
<211> 517
<212> DNA
<213> Homo sapiens

<400> 160
gctacagcgg ctctcatgat gtgggctcac ctgcgcccca gaccctgcag gggcccccct 60

gcttggctct gctgggagag tgctcagccg cccagtcctg cctgcaagcc cagggcgagt 120

attggaggag gggcagccac gggcagagca ccatgcccat ccccgagtct ctggtgtgtc 180

tgccccctct ggcatcctct gggcgtccca tgatcccttc tgtgtctgcg tgtccgaatc 240

cccgtgtgac cctgtcccag cattttcccg ccgaccctgc gtgtccccgt ggcgctgtcc 300

gctctccctc tcctgctgcc cacccacctg ccagtgttat ttatgctccc ttcgtgggtg 360

atggccacgc cctcaccatg tccctggcag agggcttccc tccgggatcc cctgcctggt 420

gcccacactg cctcgcaagc gctcgccacc ctcacgtggc tcacctgctg ttgagccttg 480

tgctgtcaat aaacggtttg aggattgcag gattgtc 517

<210> 161
<211> 259
<212> DNA
<213> Homo sapiens

<400> 161
gcagaaccag agtctgccac tggggctcag gaccaaggga ggcagcacca tgtccttctg 60

tgggacactg ccagccccag ggctccagcc cagcccggtg gatcctctgg ggaagccagg 120

accaggagag aagcaaggtc aagaaatccc acagtttgat gtattaaaga aatgacttat 180

ttctactcaa aataaatggc attgaagtct ttctttaacc ctttttgagt taatttaata 240

ataatgatct gagacaagg 259

<210> 162
<211> 443
<212> DNA
<213> Homo sapiens

<400> 162
agtcagctta catccctgag caggaaagtt tacccatgaa gattggtggg atttttgtt 60

tgtttgtttt gttttgtttg ttgtttgttg tttgtttttt tgccactaat tttagtattc 120

attctgcatt gctagataaa agctgaagtt actttatgtt tgtcttttaa tgcttcattc 180

aatattgaca tttgtagttg agcgggggggt ttggtttgct ttggtttata ttttttcagt 240

tgtttgtttt tgcttgttat attaagcaga aatcctgcaa tgaaaggtac tatatttgct 300

agactctaga caagatattg tacataaaag aatttttttg tctttaaata gatacaaatg 360

tctatcaact ttaatcaagt tgtaacttat attgaagaca atttgataca taataaaaaa 420

ttatgacaat gtcctggact ggt 443

<210> 163
<211> 527

<212> DNA
<213> Homo sapiens

<400> 163
gggccggcgc ttgccactag ggctcttgtg ttttttttct tctgctatgt gacttgcatc 60

gtggagacag ggcatttgag tttatatctc tcatgcatat tttatttaat ccccaccctg 120

ggctctggga gcagcccgct gagtggactg gagtggagca ttggctgaga gaccaggagg 180

gcactggagc tgtcttgtcc ttgctggttt tctggatggt tcccagaggg tttccatggg 240

gtaggaggat gggctcgccc accagtgact ttttctaaga gctcccggcg tggtggaaga 300

ggggacaggt ccctcaccca cccacaatcc tattctcggg ctgagaaccc tgcgtgggga 360

cagggctcgc ctcaggaatg ggctgttttt ggcctaaccc tcagaaacac tggggctggc 420

acaaactctt ggtttcttca acaggagaat tttactgtgt ttcttttggt tccattgttt 480

ggagacattc ctgggcacag tttggtccgt tagaattaaa agttgaa 527

<210> 164
<211> 57
<212> DNA
<213> Homo sapiens

<400> 164
ccctgttccc agagcccact ttttttttctt tttttgaaat aaaatagcct gtctttc 57

<210> 165
<211> 81
<212> DNA
<213> Homo sapiens

<400> 165
atcctgggat tctagtatgc aataagagat gccctgtact gatgcaaaat ttaataaagt 60

ttgtcacaga gaatctttgt a 81

<210> 166
<211> 209
<212> DNA
<213> Homo sapiens

<400> 166
gccatgtctg ggcccccagc ccctggggag gacctactgc tcccaggggc tgagaggggt 60

tcgggagcat aatgacaaac tgtcgctgcc ccagtggctg ggtgtgtgtg ggtgggatgg 120

ggtgggggtc ctgggccccc cgtgtcttcc caggtttaca atcagagaat cacagctgct 180

ttaataaatg ttatttataa tacacggaa 209

<210> 167
<211> 128
<212> DNA
<213> Homo sapiens

<400> 167
gcggtggagc tgcgggcggc cagggccggg cgctctgtgc ggactggggc catgatcggg 60

cccgggggcc tgagcctggg accccacccc gtgttaatga aaaatgagtt ttggcagcgc 120

ctgtggtc 128

<210> 168
<211> 161
<212> DNA
<213> Homo sapiens

<400> 168
gcggccgcct gaccgtcgac cttggggctc tccacccgct ctggccccag tcgaactggg 60

ggctagccac ctcctcgtcc agcccccaaa cctccccttc ctttcccccc cctccggggg 120

ccaaggacag ggtggcctta ctcagtaaag gtgtttcctg c 161

<210> 169
<211> 63
<212> DNA
<213> Homo sapiens

<400> 169
cctcgccccg gacctgccct cccgccaggt gcacccacct gcaataaatg cagcgaagcc 60

ggg 63

<210> 170
<211> 70
<212> DNA
<213> Homo sapiens

<400> 170
gacgcaggcc agccccggcc cctagccctc aggccttctt tcttatccaa ataaatgttt 60

cttaatgagg 70

<210> 171
<211> 89
<212> DNA
<213> Homo sapiens

<400> 171
ccccatcgcc gacacgcccc ccactcagcc cagcccgcct gtccctagat tcagccacat 60

cagaaataaa ctgtgactac acttggcaa 89

<210> 172
<211> 92
<212> DNA
<213> Homo sapiens

<400> 172
gagtcagagc ccacatggcc gggccctctg tagctccctc ctcccatctc cttcccccag 60

cccaataaag gtcccttagc cccgagttta aa 92

<210> 173
<211> 580
<212> DNA
<213> Homo sapiens

<400> 173
tgcctgagcg ccacctactg cattttggac acctcacacc aaggggagat gcaccccaca 60

gacacctggg actttccccct tctggttcct gtgtctccca ataaactctc tgaccaaccc 120

tagctgtgct tctgcgagaa gaaagggtgt agcaacttct ggcagatatg aggcttttt 180

ctttttttt ttttttttg agacaacgtc tggctctgtc acccaggctg gagcgcagtg 240

gcacaatctc ggcccactgc agcctcgacc tctggggctc aagggatcct catgcctcag 300

cctcatatgt agctggggcc acagacatgc accaccacac ctggctcgag gccattttag 360

ttctgaggtt gagcagctca ggagccggct ccagcacggt gctgtgtttg tgaaacagag 420

aaaggggacc cccgaggacc ccagacaggg ccttaggact ctcatatctt cttgtcttct 480

ccatctggtg gctcttgctc tctggttttc tctacctttt catggcccca gaatccatat 540

gcagtaaagg aactctctgg aataaaatta aagtcctcct 580

<210> 174
<211> 255
<212> DNA
<213> Mus musculus

<400> 174
aaagccaaag gattcaggac caagcagcac catggccttc ctatggcaca tatgcatata 60

aagaatttaa agcacggggt ggcgtgcggc ttgttcagat cagcgagtaa actggtacat 120

gaaaggatgt tcatcatatt attctgctac tgagtacatc tgaaactttc ccttgtctgt 180

ttgtagtacg tatttggcta aatgctagaa ttttgcttta aatacagcaa aagctaataa 240

acttgttagt aacta 255

<210> 175
<211> 80
<212> DNA
<213> Mus musculus

<400> 175
tgggggaggt gtcttagttt tccctatctt ttaagctgtt aacaagtttc attgcacttt 60

gaataaagtt cttgcattcc 80

<210> 176
<211> 245
<212> DNA
<213> Mus musculus

<400> 176
gcctgatccc tgacattggc gccggctctg gactcgtgct cggtgtgctc tggaaactac 60

ttccctgctc ccaggcgtcc ctgctccggg ttccatggct cccggctccc tgtatcccag 120

gcttggatcc tgtggaccag ggttactgtt ttaccactaa catctccttt tggctcagca 180

ttcaccgatc tttagggaaa tgctgttgga gagcaaataa ataaacgcat tcatttctct 240

atgca 245

<210> 177
<211> 25
<212> DNA
<213> Mus musculus

<400> 177
agacaataaa ggactttatt cttgt 25

<210> 178
<211> 475
<212> DNA

<213> Mus musculus

<400> 178
gggctcccag gagagcccag ggactctgcg ccacactgaa gataactgag atggagcgca 60

ctccagccgc gcaggactga cgaggccaca cccatgggct ctgtggcttt ctctgctctc 120

atggattgaa cagggtcccc catgtgggcc cgggcgatct gctgtctgct tatctaagga 180

tcctcttaga ggctgccttt ttttttttt tttttaagga gcgattaaga aaagggaagg 240

aaattcaagt cagtgttttg gctgtttttg ttttttgttt gtttgttttt gtttgttttt 300

tgtggtgttg ggttttgagg ttttttgttt ggttggtttg gttttgggat cgtgtgttta 360

ttttattgtt tttgttttgg ggggttggtc gtttgttgtt ttgggggggtt gttttgtttt 420

gtttgtttgt tggttactgt ttttcaagaa gaaatataaa ttcatcctcc aagct 475

<210> 179
<211> 325
<212> DNA
<213> Mus musculus

<400> 179
ccccgccccc tcctgtccca ttggctccaa gatcagcagg aggaacacag aactggaggg 60

gcgggtggag ggccggtgtg ctcttcccag caggcctgag aatgagtggg aatcagggca 120

tttgggcctg gctggagatc aggtttgcac actgtcttga gaacaatgtt ccagtgagga 180

atcctgatct ctcgccccca attgagccag ctggccacag cccacccctt ggaatatcac 240

cattgcaatc atagcttggg ttgcttttaa acgtggattg tcttgaagtt ctccagcctc 300

catggaagga tgggtcagat cccag 325

<210> 180
<211> 162
<212> DNA
<213> Mus musculus

<400> 180
gacctctggc tgagattgaa taggacaacc aatgaccttg acactgcctc ttaggcactt 60

agctctagca atgccctgga agtctcttca gctgagctcc agggcaaagg cagaagggtg 120

cctctgtacg acggcacagt gagctggata ggttagtcat gc 162

<210> 181

<211> 240
<212> DNA
<213> Mus musculus

<400> 181
cctaaccata cctaattgtt gtcttgttct cctatacaat aatggagagt actcttgacc 60

ccacgaagag ctgggcctct catgtggtgt tagtgacgga tatgaaataa tgctctgtat 120

ttcttgtgaa atgatggcta tgtctttgct gtttctcatt tgtttttaac ttgtatactt 180

tgaaatagtc tctgtagttg tttcctggct ttgaaaaaaa tgttattaaa ggaaaattgt 240

<210> 182
<211> 108
<212> DNA
<213> Mus musculus

<400> 182
ccggccccag ggtgacagag tcagggcccc atgggaacaa gcatggtgga ggcgcctcag 60

ggccacgggc cacgtctgtt gcaataaatc tgcagctctg cttcttgc 108

<210> 183
<211> 279
<212> DNA
<213> Mus musculus

<400> 183
agagccggag agtgggctga gtccctgctg atgaggcgct ctcctcactt cccagaagac 60

tcaaatcttc ttcctcctcg cacaggttgg gggggtcaga actatcggac ttgtcccact 120

caaacatgat gagtgagcac acaaagggcc agagtcagaa aaggaaggga acaagttgag 180

ctactgctag gaacctgagg gaaaagatgg atgagaaggt ggcaagtccg tgacggtggc 240

aacttcccaa accaggaaat aaaatgtctt ttactataa 279

<210> 184
<211> 258
<212> DNA
<213> Mus musculus

<400> 184
ggtgagcgct gcccagtctt ccccgtgtgc cggctgcgag cctccttgct cctgcatctc 60

gaccattccg tgttggctgt gtcgcctgac ctgcgtacct gtggaggatt cggaacaagt 120

catggagaga ctgtccgggt ccgctccttg tgaactgtgc agaaggagtg atcccagcat 180

cggcaagcga gggagaagac tgcacgagag tgatgcgcat ttcgagtctg cttttcgata 240

gttgatgtct tcttgcct 258

<210> 185
<211> 285
<212> DNA
<213> Mus musculus

<400> 185
gtctctctcc ttcggactgg tgccccttca ctctgctagc tctgagcctg cactgtaggc 60

tcctgggggc tgctgttcag tgcccctggc cctgggggct gggcaggagc agggcccccc 120

ttgaaggggt tgctgtgtgt aagttatttt gtacatgtct gggtgtgggt ttacatctgc 180

ttccctgccc tcgctcagcc cactgtatga attgtataaa tgtttctatt aaattgggac 240

tgctctttcc ttagctttat atatattaaa atgtgtacat ctctc 285

<210> 186
<211> 47
<212> DNA
<213> Mus musculus

<400> 186
ggggccagga cgtcgtccct gtgaccaaca gtaaaatatt gtgactc 47

<210> 187
<211> 521
<212> DNA
<213> Mus musculus

<400> 187
gaggacaaca ggacacacag tggcagcagg gactgtggta gcagagtgca cacatctgtc 60

cttcttctgt ggggtccttc actgccaaca cctgcaacgg tgctttgtct ctctgacagc 120

tatggtgtct tgctgcacac ttctagttag tgggaatttt agacggggaa cacagggcta 180

gtcagggcct ttgtgtgctt ggtgtggagt gactgagaac cgtctatggt tcaaggtccc 240

actggggata aactgcttag agcactgtcc tagagggcaa gtgtagcctt cgcctccggg 300

cccaggcagg ctatgcagtc agcagtaggg tctgtgctcc atgcgggtcc aggcgcacgg 360

ctctcctatt ctgttgtcat ttgtgccctc tatgggcagg tgtgtttcaa gttggttttc 420

tgttgctgag gctttcatac acatcagtta ccatctcagc tgatttgtct actgaaagct 480

tgctgttttc aataaatctt agtttgccat ggttttaagt c 521

<210> 188
<211> 63
<212> DNA
<213> Mus musculus

<400> 188
gacactacct tcttttaaaa atccttgtat agtgacgtgt tgtgtaaata cagtttttat 60

tcc 63

<210> 189
<211> 284
<212> DNA
<213> Mus musculus

<400> 189
gtcccagctt cctttcttgt ctcttcaggc ccagctgctg ggcaaggaat cccgatgccc 60

cccccacggg ggcagcacac ttagcagaca atcctggagc atacagatag cccaagcaca 120

tagatgtact aaactgggac catgctttag gctccagacg agagtctttt ctaacttggg 180

gatgcagtct cagatactgg gggcccctct gcctcatctc cattcttaca cctcaaatct 240

gtacagttac ttttgtactg actgtaataa acagccaaac agtt 284

<210> 190
<211> 570
<212> DNA
<213> Mus musculus

<400> 190
aagttcgagt caaagctgtc attccagtgc tgccatcagg agcagcatcc aaggggccaa 60

atcttcggaa taactggaca gatcattacg gagcatacgc agaactgcac tgaatatttt 120

aaggccctaa tgagtttaca gctgtaacct tccatggatc ttcccttaag aactgtcttc 180

tgtttatctt ctaactaaca ggttgttctg ttagtatcat ttcggtaatt ttgctatatt 240

tgtgtccaag gaagtaagag ttgttctgtt ttgggatcat gttgtctttt ttctttcttc 300

agtagcttat gatatatttt aatcatgttt acaatgttac aatttagtat tgatgtttta 360

tgaagttaaa ttattaaatg aatggtctta aatccactgt ggtggttttt ttttgaaaaa 420

ttatataatt accataagcc aaaaatcaaa tatttggaat acctactgtg aaattcaaga 480

gattaaaggt tgtacttgat acttgttatt tttcttaaat aaatctagtt atcaagttat 540

ttttcttaaa taaatctagt tatcaaatgt 570

<210> 191
<211> 208
<212> DNA
<213> Mus musculus

<400> 191
caagcctagg ctaaagacac tttggtatcc cacacctact gcctgctcca aaaggcagaa 60

ccactgacca ccttgctttt ccaaactcat gagcacagcc cagaaggaac agaagacttc 120

tgctaacgtc atcatgccat aaacagacag aagcagggaa tggctctatc cctagctgcc 180

tgctaagtaa acacggtttt gaagcgtc 208

<210> 192
<211> 532
<212> DNA
<213> Mus musculus

<400> 192
tgacttcaaa taaagatctg tttgatatca cactagcctc ttcccctccc cagaaaactt 60

tgggcacctt ctggctttgg ttaggaactg agttggacag gttgggtaaa tttcaacctc 120

agggcatcat gcccaggaaa gctggggaga ggcgatgttc ttttcctcag tttggagcgg 180

gaagaaggag ttttaatgac tgtgcttcct cttctcctcc ccatggaagg ggggggggat 240

ccctggctca gcatccactg ctggtggaaa cctcgctgcg aggtgccgct gtgaggtgtg 300

ccgctgtgag gtgcgtgctc tggaagagag gcggagcttg tccgcttcct gctgcctctg 360

cctgcagtac caccctcggt ctaagcactc atgattttat actttcagaa aaaagtttta 420

agacttcttt gggtttttg tttttgtttt gaagcctaag aaagtcacta gttcttgcct 480

ttatgtattt atatgctgta cctaacaata aagaaagaag aaaaaaaaca aa 532

<210> 193
<211> 74
<212> DNA
<213> Mus musculus

<400> 193
gcggcggagc ctggggctcc ctggactgac accctacccc tgagttaata aaagttgaat 60

tttgacagct ccca 74

<210> 194
<211> 222
<212> DNA
<213> Mus musculus

<400> 194
agctatttaa agctagtagt ccattcacca ggacaggcca aacatccgga accagagtgg 60

cctgcagagg acaggacagg agcccttcag tccttgggta tttcacagac aacctcagtg 120

gtatagaggt acaccacttt cccattcagg aatcagtgcg tcaaccctgt gtgacccaag 180

gagtgtggtt aattattaat aaagacattg catccccccc tc 222

<210> 195
<211> 190
<212> DNA
<213> Mus musculus

<400> 195
gaccacgatg cacccacatc ccgccacctg cccaggactt gggacctgca aactgatgtc 60

ccggcattct gcacagggtc atcacccagg aaggggtacc cgcttggact ttgcaggacc 120

agcacctgca gctcaatccc ctctgtactg gcctgcctac cccactcaca gaaataaaat 180

ctaaaacgac 190

<210> 196
<211> 182
<212> DNA
<213> Mus musculus

<400> 196
ccttcccgct gaggcatttg gagacgccag ggctgctgtc catggtttca acataaaacg 60

gcctgtgacc agcagagccc aagagcagcc acagagcaga agtccctgtt ccctttttta 120

tggactctta tgcactacag gcgaacacaa aaaaaagcaa cggaataaag ccttcctccc 180

tc 182

<210> 197
<211> 51
<212> DNA
<213> Mus musculus

<400> 197
cctcccacat atcctccata tttgtgaata aagtagggaa aatgctgtca t 51

<210> 198
<211> 202
<212> DNA
<213> Mus musculus

<400> 198
gtgaacctga agattctaga gaccaagtga catcctctcc tacctagact cctataaacc 60

aagttcttcc tttcctgacg aagggtaaat atctttcttg tggcctaaat tatagactct 120

tgcttcaact caccctggaa aaatctctat taaaacgaga tgggagattg aaatggattc 180

aaataaagat gctctagcag ga 202

<210> 199
<211> 289
<212> DNA
<213> Mus musculus

<400> 199
ggagcgcaac gtcgcaggga atagactcag acgccggtag agttgcccga gggcgagaag 60

ttggggcaag ctgaaagtgg gggtctgtcc cttcgtaggt ttttagacgc atcccccgtc 120

gacggctgct taccaaccac cagcacctgc gatacctcat ccatttctgt gaatatattt 180

gaaggcatct ttgcaagacg gggtcattaa aacacagaca ccacccctac gtttccagcc 240

attccaaagt attaccgact taataaatat tcacgtttct tgaaccact 289

<210> 200
<211> 95
<212> DNA
<213> Mus musculus

<400> 200
ggttaacacg aagcttaggg cctgggtgtg agaacctaag acccccagcc agtgacctga 60

cttttaaacc tgacaataaa ggtactggac acgcg 95

<210> 201
<211> 472
<212> DNA
<213> Mus musculus

<400> 201
ccttagctca gagaactctg actccagaac gtgggtggct atggggccct gcctctctgt 60

cctccttccc atgctaccca gagcacaagt gtgctagcag ggcagggggt ggggagggca 120

gaagcagtga tgacctggtg gcccaccact gccagtgtcc cttctaccac agctgctctc 180

tgcagctttg ggacaaaggg cacatggaac tgcagtgttc tgtctggagt ttgaggcctc 240

cacaagctgg tgtcccagca gggccagcct gcaatccggg caccactcca agcagttgat 300

aaccctgctc cttgggcagg ccccctgggt agaggtgctt cagccaaggc tgattcccca 360

agatccgcat gatgggagga gggaggtgtc tcctccaaat tgtcctctga actctgtatg 420

tgtgctgtgg tgcacacata catgctagct aaataaacaa acaaacaaat aa 472

<210> 202
<211> 273
<212> DNA
<213> Mus musculus

<400> 202
gtggtaccta ctgtctgaca cccacgggga aactgagcca ggtccaggcc gatgagaagt 60

tcccagtggg ctgaagtggc caccaggggt cagcagtgct ccagttgctg ggcttaaagc 120

ttcctggtgc ctgtctgcca ggtcatggag gattccccaa tctggcatcc ccacgatgcc 180

tctggagaga tggccttgat tgcccctcaa agccacctga accgtcgtca acttacccag 240

cctgtctcca ttaaacacca ggaaccaact gag 273

<210> 203
<211> 87
<212> DNA
<213> Mus musculus

<400> 203
tgcagagagt cctcagatgt tccttcattc aagagtttaa ccatttctaa caatatgtag 60

ttatcattaa atctttttta aagtgtg 87

<210> 204
<211> 532
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 204
tgacttcaaa taatgatctg tttgatatca cactagcctc ttcccctccc cagaaaactt 60

tgggcacctt ctggctttgg ttaggaactg agttggacag gttgggtaaa tttcaacctc 120

agggcatcat gcccaggaaa gctggggaga ggcgatgttc ttttcctcag tttggagcgg 180

gaagaaggag ttttaatgac tgtgcttcct cttctcctcc ccatggaagg ggggggggat 240

ccctggctca gcatccactg ctggtggaaa cctcgctgcg aggtgccgct gtgaggtgtg 300

ccgctgtgag gtgcgtgctc tggaagagag gcggagcttg tccgcttcct gctgcctctg 360

cctgcagtac caccctcggt ctaagcactc atgattttat actttcagaa aaaagtttta 420

agacttcttt gggtttttg tttttgtttt gaagcctaag aaagtcacta gttcttgcct 480

ttatgtattt atatgctgta cctaacaata aagaaagaag aaaaaaaaca aa 532

<210> 205
<211> 2035
<212> RNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 205
ggggcgcugc cuacggaggu ggcagccauc uccuucucgg caucaagcuu gaggauggag 60

gacgccaaga acaucaagaa gggcccggcg cccuucuacc cgcuggagga cgggaccgcc 120

ggcgagcagc uccacaaggc caugaagcgg uacgcccugg ugccgggcac gaucgccuuc 180

accgacgccc acaucgaggu cgacaucacc uacgcggagu acuucgagau gagcgugcgc 240

cuggccgagg ccaugaagcg guacggccug aacaccaacc accggaucgu ggugugcucg 300

gagaacagcc ugcaguucuu caugccggug cugggcgccc ucuucaucgg cguggccguc 360

gccccggcga acgacaucua caacgagcgg gagcugcuga acagcauggg gaucagccag 420

ccgaccgugg uguucgugag caagaagggc cugcagaaga uccugaacgu gcagaagaag 480

cugcccauca uccagaagau caucaucaug gacagcaaga ccgacuacca gggcuuccag 540

ucgauguaca cguucgugac cagccaccuc ccgccgggcu ucaacgagua cgacuucguc 600

ccggagagcu ucgaccggga caagaccauc gcccugauca ugaacagcag cggcagcacc 660

ggccugccga aggggguggc ccugccgcac cggaccgccu gcgugcgcuu cucgcacgcc 720

cgggacccca ucuucggcaa ccagaucauc ccggacaccg ccauccugag cguggugccg 780

uuccaccacg gcuucggcau guucacgacc cugggcuacc ucaucugcgg cuuccgggug 840

guccugaugu accgguucga ggaggagcug uuccugcgga gccugcagga cuacaagauc 900

cagagcgcgc ugcucgugcc gacccuguuc agcuucuucg ccaagagcac ccugaucgac 960

aaguacgacc ugucgaaccu gcacgagauc gccagcgggg gcgccccgcu gagcaaggag 1020

gugggcgagg ccguggccaa gcgguuccac cucccgggca uccgccaggg cuacggccug 1080

accgagacca cgagcgcgau ccugaucacc cccgaggggg acgacaagcc gggcgccgug 1140

ggcaaggugg ucccguucuu cgaggccaag gugguggacc uggacaccgg caagacccug 1200

ggcgugaacc agcggggcga gcugugcgug cgggggccga ugaucaugag cggcuacgug 1260

aacaacccgg aggccaccaa cgcccucauc gacaaggacg gcuggcugca cagcggcgac 1320

aucgccuacu gggacgagga cgagcacuuc uucaucgucg accggcugaa gucgcugauc 1380

aaguacaagg gcuaccaggu ggcgccggcc gagcuggaga gcauccugcu ccagcacccc 1440

aacaucuucg acgccggcgu ggccgggcug ccggacgacg acgccggcga gcugccggcc 1500

gcgguggugg ugcuggagca cggcaagacc augacggaga aggagaucgu cgacuacgug 1560

gccagccagg ugaccaccgc caagaagcug cggggcggcg ugguguucgu ggacgagguc 1620

ccgaagggcc ugaccgggaa gcucgacgcc cggaagaucc gcgagauccu gaucaaggcc 1680

aagaagggcg gcaagaucgc cguguaagac uagugcauca cauuuaaaag caucucagcc 1740

uaccaugaga auaagagaaa gaaaaugaag aucaauagcu uauucaucuc uuuuucuuuu 1800

ucguuggugu aaagccaaca cccugucuaa aaaacauaaa uuucuuuaau cauuuugccu 1860

cuuuucucug ugcuucaauu aauaaaaaau ggaaagaacc uagaucuaaa aaaaaaaaaa 1920

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa augcaucccc 1980

cccccccccc cccccccccc cccccccaaa ggcucuuuuc agagccacca gaauu 2035

<210> 206
<211> 186
<212> DNA
<213> Homo sapiens

<400> 206
catcacattt aaaagcatct cagcctacca tgagaataag agaaagaaaa tgaagatcaa 60

aagcttattc atctgttttt ctttttcgtt ggtgtaaagc caacaccctg tctaaaaaac 120

ataaatttct ttaatcattt tgcctctttt ctctgtgctt caattaataa aaaatggaaa 180

gaatct 186

<210> 207
<211> 186
<212> DNA
<213> Homo sapiens

<400> 207
catcacattt aaaagcatct cagcctacca tgagaataag agaaagaaaa tgaagatcaa 60

tagcttattc atctcttttt ctttttcgtt ggtgtaaagc caacaccctg tctaaaaaac 120

ataaatttct ttaatcattt tgcctctttt ctctgtgctt caattaataa aaaatggaaa 180

gaacct 186

<210> 208
<211> 42
<212> DNA
<213> Homo sapiens

<400> 208
ggcgctgcct acggaggtgg cagccatctc cttctcggca tc 42

<210> 209
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 209
caaaggctct tttcagagcc acca 24

<210> 210
<211> 2316
<212> RNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 210

ggggaaacag uguggggccu agagcgcugg gugggcgcgu ucugcggccu gagcagggac 60

ggguagugaa gcgguuacgc cccuucuucg cgucuuggcg ggagccugac gccccgcuuc 120

uccccuaacg agguguccca ccggcgcccg ccgaggccua ggccuccgca gccgcccucc 180

gucuccucag ccccgacgcu gcgccuuggg ccuugugcgc auuuuuuucg ggggaaaacu 240

gaggcucgga gugcgaaagu cagccgaggu cgccccgccc aggacagaga agggcugugg 300

ucggcugauc cgcggcauuc ccgggaagcu ugaggaugga ggacgccaag aacaucaaga 360

agggcccggc gcccuucuac ccgcuggagg acgggaccgc cggcgagcag cuccacaagg 420

ccaugaagcg guacgcccug gugccgggca cgaucgccuu caccgacgcc cacaucgagg 480

ucgacaucac cuacgcggag uacuucgaga ugagcgugcg ccuggccgag gccaugaagc 540

gguacggccu gaacaccaac caccggaucg uggugugcuc ggagaacagc cugcaguucu 600

ucaugccggu gcugggcgcc cucuucaucg gcguggccgu cgccccggcg aacgacaucu 660

acaacgagcg ggagcugcug aacagcaugg ggaucagcca gccgaccgug guguucguga 720

gcaagaaggg ccugcagaag auccugaacg ugcagaagaa gcugcccauc auccagaaga 780

ucaucaucau ggacagcaag accgacuacc agggcuucca gucgauguac acguucguga 840

ccagccaccu cccgccgggc uucaacgagu acgacuucgu cccggagagc uucgaccggg 900

acaagaccau cgcccugauc augaacagca gcggcagcac cggccugccg aaggggugg 960

cccugccgca ccggaccgcc ugcgugcgcu ucucgcacgc ccgggacccc aucuucggca 1020

accagaucau cccggacacc gccauccuga gcguggugcc guuccaccac ggcuucggca 1080

uguucacgac ccugggcuac cucaucugcg gcuuccgggu gguccugaug uaccgguucg 1140

aggaggagcu guuccugcgg agccugcagg acuacaagau ccagagcgcg cugcucgugc 1200

cgacccuguu cagcuucuuc gccaagagca cccugaucga caaguacgac cugucgaacc 1260

ugcacgagau cgccagcggg ggcgccccgc ugagcaagga ggugggcgag gccguggcca 1320

agcgguucca ccucccgggc auccgccagg gcuacggccu gaccgagacc acgagcgcga 1380

uccugaucac ccccgagggg gacgacaagc cgggcgccgu gggcaaggug gucccguucu 1440

ucgaggccaa ggugguggac cuggacaccg gcaagacccu gggcgugaac cagcggggcg 1500

agcugugcgu gcgggggccg augaucauga gcggcuacgu gaacaacccg gaggccacca 1560

acgcccucau cgacaaggac ggcuggcugc acagcggcga caucgccuac ugggacgagg 1620

acgagcacuu cuucaucguc gaccggcuga agucgcugau caaguacaag ggcuaccagg 1680

uggcgccggc cgagcuggag agcauccugc uccagcaccc caacaucuuc gacgccggcg 1740

uggccgggcu gccggacgac gacgccggcg agcugccggc cgcgguggug gugcuggagc 1800

acggcaagac caugacggag aaggagaucg ucgacuacgu ggccagccag gugaccaccg 1860

ccaagaagcu gcggggcggc gugguguucg uggacgaggu cccgaagggc cugaccggga 1920

agcucgacgc ccggaagauc cgcgagaucc ugaucaaggc caagaagggc ggcaagaucg 1980

ccguguaaga cuagugcauc acauuuaaaa gcaucucagc cuaccaugag aauaagagaa 2040

agaaaaugaa gaucaauagc uuauucaucu cuuuuucuuu uucguuggug uaaagccaac 2100

acccugucua aaaaacauaa auuucuuuaa ucauuuugcc ucuuuucucu gugcuucaau 2160

uaauaaaaaa uggaaagaac cuagaucuaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2220

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaugcauccc cccccccccc cccccccccc 2280

ccccccccaa aggcucuuuu cagagccacc agaauu 2316

<210> 211
<211> 1948
<212> RNA
<213> Artificial Sequence

<220>
<223> artificial nucleic acid sequence

<400> 211
ggggcgcugc cuacggaggu ggcagccauc uccuucucgg caucaagcuu gaggauggag 60

gacgccaaga acaucaagaa gggcccggcg cccuucuacc cgcuggagga cgggaccgcc 120

ggcgagcagc uccacaaggc caugaagcgg uacgcccugg ugccgggcac gaucgccuuc 180

accgacgccc acaucgaggu cgacaucacc uacgcggagu acuucgagau gagcgugcgc 240

cuggccgagg ccaugaagcg guacggccug aacaccaacc accggaucgu ggugugcucg 300

gagaacagcc ugcaguucuu caugccggug cugggcgccc ucuucaucgg cguggccguc 360

gccccggcga acgacaucua caacgagcgg gagcugcuga acagcauggg gaucagccag 420

ccgaccgugg uguucgugag caagaagggc cugcagaaga uccugaacgu gcagaagaag 480

cugcccauca uccagaagau caucaucaug gacagcaaga ccgacuacca gggcuuccag 540

ucgauguaca cguucgugac cagccaccuc ccgccgggcu ucaacgagua cgacuucguc 600

ccggagagcu ucgaccggga caagaccauc gcccugauca ugaacagcag cggcagcacc 660

ggccugccga aggggguggc ccugccgcac cggaccgccu gcgugcgcuu cucgcacgcc 720

cgggacccca ucuucggcaa ccagaucauc ccggacaccg ccauccugag cguggugccg 780

uuccaccacg gcuucggcau guucacgacc cugggcuacc ucaucugcgg cuuccgggug 840

guccugaugu accgguucga ggaggagcug uuccugcgga gccugcagga cuacaagauc 900

cagagcgcgc ugcucgugcc gacccuguuc agcuucuucg ccaagagcac ccugaucgac 960

aaguacgacc ugucgaaccu gcacgagauc gccagcgggg gcgccccgcu gagcaaggag 1020

gugggcgagg ccguggccaa gcgguuccac cucccgggca uccgccaggg cuacggccug 1080

accgagacca cgagcgcgau ccugaucacc cccgaggggg acgacaagcc gggcgccgug 1140

ggcaaggugg ucccguucuu cgaggccaag gugguggacc uggacaccgg caagacccug 1200

ggcgugaacc agcggggcga gcugugcgug cgggggccga ugaucaugag cggcuacgug 1260

aacaacccgg aggccaccaa cgcccucauc gacaaggacg gcuggcugca cagcggcgac 1320

aucgccuacu gggacgagga cgagcacuuc uucaucgucg accggcugaa gucgcugauc 1380

aaguacaagg gcuaccaggu ggcgccggcc gagcuggaga gcauccugcu ccagcacccc 1440

aacaucuucg acgccggcgu ggccgggcug ccggacgacg acgccggcga gcugccggcc 1500

gcgguggugg ugcuggagca cggcaagacc augacggaga aggagaucgu cgacuacgug 1560

gccagccagg ugaccaccgc caagaagcug cggggcggcg ugguguucgu ggacgaggac 1620

ccgaagggcc ugaccgggaa gcucgacgcc cggaagaucc gcgagauccu gaucaaggcc 1680

aagaagggcg gcaagaucgc cguguaagac uagucgccgc cgccgccgcc gccggagccu 1740

gucgccgucc ugucccccagc cugcuugugu cccgugaggu ugucaauaaa ccugcccucg 1800

ggcugccgcc ucccagaucu aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1860

aaaaaaaaaa aaaaaaaaaa aaaaugcauc cccccccccc cccccccccc cccccccccc 1920

aaaggcucuu uucagagcca ccagaauu 1948