SEQUENCE LISTING

<110> DAIICHI SANKYO COMPANY, LIMITED

<120> Promoters of Hspa5

<130> SP100892SGM

<150> JP2016-195564
<151> 2016-10-03

<160> 37

<170> PatentIn version 3.5

<210> 1
<211> 2949
<212> DNA
<213> Cricetulus griseus

<400> 1
tatagcccag gcacacatga acttgtaatc ctcctgcttc agcctcttca gtagctgggg 60

ttacaggcct accactaggt gtggctcagg tatcactttt ttaaatgtta caaaaattgg 120

tgcaagtact tcattaatca aaaaacaggc tgaaattgag ttttgtattt tagtggaaat 180

agactgtgat acagatgtgc ttgaaatgac atgaagctgt gatgtggtca aatagtgatt 240

tttttctttc atttcttctt cttgttctta ctctttttc atatagggtt tcaatatgca 300

gctctggaac tatttagacc aggatggcct tgaattcaag agatccctct gcttctgcct 360

cccttgtgct gagattaaag tcatgagcca ccatatccgg ctgtagtctc ctttaaaatt 420

caagccaaaa gtatctgcaa agatggtcgg tggttaagag cactggctgc tctttcatgg 480

gaccagggat taaaggcatg cagcagtaaa ctgggcttag tgacttctgt cttcatactg 540

gactggtaca gtcccaagga agatcaatgt tatgacagta ttacaagcct tactgaaagt 600

ggtgtatgat gcaacatctg tagaaaagat ggtgttgact gagtcaccaa cataaccttt 660

gaggaacaag aaaggagaaa ttcctgaaca gtgactcaca agctcacatt ttagtgaact 720

gtgtgtaatg ttccagtagt attcagacag tctacttatg aagctcaaga tacatttaat 780

gggaatactg gagtcatttc ctgcccgtga caacatccta agcatctcct ataagcatgt 840

atataagtaa gcacatggga ggcagagaca gtagatctga gagctccatc ccaggggatg 900

gatatcagtc agttgcctag catgcacaga atcttgggtc aagtcccaac tggacacagt 960

aatgtatgcc tattagtccc aacacttgga aggtattggc agaaggttca ggagttcaaa 1020

gtcatctgct acaaagtgtt gaggctagcc tgggttacat gagtctccat ctttaaaaaa 1080

agaaaaaagt ggggctggaa agatggctca gtggttaaga gcaccgcctg ctcttccaaa 1140

ggtcctgagt tcaattccca gcaaccacat ggtggctcaa aaccatctgt agtgaaatct 1200

ggtgccctct gtgtacaaga taaatgaatg aatcttaaaa aaaaaagtca gtgggtggtg 1260

gtggcgcaca cctttagtcc cagcactcgg gagaggcagg tgtgagttcg agaccagcct 1320

ggtctacaag agctacttcc aggacaaagc ctccaaagcc acagagaaac cctgtctcga 1380

aaaaccaaac caaaccaaac caaaaaagtc aatagcataa gctacagatc aaccaggtta 1440

tcaattctac ctgtaccact caccagtgac tattctattt agccaccccc cccccaatga 1500

tctcttctgg aaaatgggaa acatctacca agaattaatc aaaggactaa atgacacatg 1560

caaaaaaaaa aaaaccttag aacagtgttt taagcaggat aagtagttca agaccagttt 1620

ggaccatgtc tcaaaactaa aggaacaacg aagtacattt agtatttttt gcaacatgtt 1680

attattacat agcatcagga agacaatttt ttctttgtct gctaaatgcc tttgtcatat 1740

cagacctatt tcaagagtca ggatagaatg gtgtcaagaa gggatgagga aggacttgta 1800

aattataacc aagccacaaa tgaaaatgat agacaaggat cgggaacatt atggggcgac 1860

aagctagaga aaaaaaatga tatattccag ggtggaaagt gctcgcttga ctattcatag 1920

aacagaatag ccacagcata gcgggggct cagtactagg ttgcaaatgg ccaggccaat 1980

tctgggactt aaccccaaga aaagaaaaat tggcaaggcc aggatagaca aatgcagctg 2040

gcctaggggt gaagggaaaa cagttggctg agaagagcca cgattcgcag agaggcagaa 2100

cacagactag gacccagctc gagacgtgca ggccgggtgg gtaacataga gcccgggcgc 2160

tcggctaccc gagaacgtga gggaggcttg gaagggcaga gatgcgttcc caggcgacca 2220

cagcatctat gctgaggctg agcagctcgg gacccgaggg gacttaggag gagaaaaggc 2280

cgcatactgc ttcggggtaa gggacagacc ggggaaggac ccaagtccca ccgcccagag 2340

ggaactgaca cgcagacccc gcagcagtcc ccgggggccg ggtgacggga ggacctggac 2400

ggttaccggc ggaaacggtc tcgggttgag aggtcacctg agggacaggc agctgctgaa 2460

ccaataggac cggcgcacag ggcggatgct gcctctcatt ggcggccgtt gagagtaacc 2520

agtagccaat gagtcagccc ggggggcgta gcggtgacgt aagttgcgga ggaggccgct 2580

tcgaatcggc agcggccagc ttggtggcat ggaccaatca gcgtcctcca acgagaagcg 2640

ccttcaccaa tcggaggcct ccacgacggg gctgggggga gggtatataa gccaagtcgg 2700

cggcggcgcg ctccacactg gccaagacaa cagtgaccgg aggacctgcc tttgcggctc 2760

cgagaggtaa gcgccgcggc ctgctcttgc cagacctcct ttgagcctgt ctcgtggctc 2820

ctcctgaccc ggggggcttc tgtcgccctc agatcggaac gccgccgcgc tccgggacta 2880

cagcctgttg ctggacttcg agactgcaga cggaccgacc gctgagcact ggcccacagc 2940

gccggcaag 2949

<210> 2
<211> 999
<212> DNA
<213> Homo sapiens

<400> 2
acagtaggga ggggactcag agctggaggc aattcctttg gccgggcttg tcctgcgact 60

taccgtgggg cagcgcaatg tggagaggcc tggtaaaatg gctgggcaag ggtgcggagg 120

ggacataact ggcaggaagg agtcatgatt cgtggtcgaa cagagtccag accagctcga 180

cctgtgagca acgaacggcc ctgagactcg catacccaa taccggtagt ggccgtgaag 240

ggcaaagaaa tgtgttctga ggcgatccca gcatctaagc tgcgactggt ctactcagag 300

actggatgga agctgggaag agaaagctgc ttcccgcttc ggggtgaggg atggaggaag 360

ggagaacaag cagtagagaa ggaaaagttt cagatcccac agccccgggg ggtcactcct 420

gctggatcta ctccgacccc ctagggccgg gagtgaaggc gggacttgtg cggttaccag 480

cggaaatgcc tcggggtcag aagtcgcagg agagatagac agctgctgaa ccaatgggac 540

cagcggatgg ggcggatgtt atctaccatt ggtgaacgtt agaaacgaat agcagccaat 600

gaatcagctg ggggggcgga gcagtgacgt ttattgcgga gggggccgct tcgaatcggc 660

ggcggccagc ttggtggcct gggccaatga acggcctcca acgagcaggg ccttcaccaa 720

tcggcggcct ccacgacggg gctgggggag ggtatataag ccgagtaggc gacggtgagg 780

tcgacgccgg ccaagacagc acagacagat tgacctattg gggtgtttcg cgagtgtgag 840

agggaagcgc cgcggcctgt atttctagac ctgcccttcg cctggttcgt ggcgccttgt 900

gaccccgggc ccctgccgcc tgcaagtcgg aaattgcgct gtgctcctgt gctacggcct 960

gtggctggac tgcctgctgc tgcccaactg gctggcaag 999

<210> 3
<211> 1000
<212> DNA
<213> Mus musculus

<400> 3
atggtggaaa gtgctcgttt gaccatagta ctgaatctcc gcggcggaga aagggaatag 60

gttacaattg gccaggccaa tcctgggact taaccccggc aaagggaaga ttcgaaaggc 120

ctggaaagac acatacggct agccttgggg tgaaggagaa acacggttag ctgagaagca 180

ccaggattct cagcgaggca gaatccagat caggccccag ctcgagacgt gcaggccggg 240

cgagtaacag ggcctggact ctgggacatc cgagaacgtg tggaggctgg ggagggcgat 300

cacagctgag gccgggcagc tcaggacgcg gggaatcgag gaggagaaag gccgcgtact 360

tcttcagagt gagagacaga aaaggagacc ccgagggaac tgacacgcag accccactcc 420

agtccccggg ggcctggcgt gaggggagga cctgaacggt taccggcgga aacggtctcg 480

gggtgagagg tcacccgaag gacaggcagc tgctgaacca ataggaccag cgctcagggc 540

ggatgctgcc tctcattggt ggccgttaag aatgaccagt agccaatgag tcagcccggg 600

gggcgtagca atgacgtgag ttgcggagga ggccgcttcg aatcggcagc agccagcttg 660

gtggcatgga ccaatcagcg gcctccaacg agtagcgact tcaccaatcg gaggcctcca 720

cgacggggct gtggggaggg tatataaggc gagtcggcga cggcgcgctc gatactggcc 780

gagacaacac tgacctggac acttgggctt ctgcgtgtgt gtgaggtaag cgccgcggcc 840

tgctgctagg cctgctccga gtctgcttcg tgtctcctcc tgaccccgag gcccctgtcg 900

ccctcagacc agaaccgtcg tcgcgtttcg gggccacagc ctgttgctgg actcctaaga 960

ctcctgcctg actgctgagc gactggtcct cagcgccggc 1000

<210> 4
<211> 1000
<212> DNA
<213> Rutilus rutilus

<400> 4
ctcaacggag aagggctccg gactaggtta caattggcca ggccaatcct gggacttatc 60

cccgggaaag ggaaaatcag aaaggcccag aaacatacat acaactagac ttggggtgaa 120

cgaggagcat gattagctga gaagagccag gattctcagc gaggcagaac ccataccagg 180

ccccagcccg ggacatgcag gcccgttgag taacagggcc tggacgctgg aacacccgag 240

aaaagtgccg aggctgggaa gggtgatcac agcatcacag ctgaggccgg gcagctgaag 300

acatgagtga atctaggaga agaaaggcag cgtacttctt ccgagtgaga gacagaaaga 360

gaggacccga gtctcacagc cctgagggaa ctgacacgca gaccccactc cagtccccgg 420

gggcccaacg tgaggggagg acctggacgg ttaccggcgg aaacggtttc caggtgagag 480

gtcacccgag ggacaggcag ctgctcaacc aataggacca gctctcaggg cggatgctgc 540

ctctcattgg cggccgttaa gaatgaccag tagccaatga gtcggcctgg ggggcgtacc 600

agtgacgtga gttgcggagg aggccgcttc gaatcggcag cggccagctt ggtggcatga 660

accaaccagc ggcctccaac gagtagcgag ttcaccaatc ggaggcctcc acgacggggc 720

tgcggggagg atatataagc cgagtcggcg accggcgcgc tcgatactgg ctgtgactac 780

actgacttgg acacttggcc ttttgcgggt ttgagaggta agcgtcgcgg cctgcttcca 840

ggcctaccct gattttggtt cgtggctcct cctgaccctg agacctctgt cgccctcaga 900

tcagaaccgt cgtcgcgttt cggggctaca gcctgttgct ggactctgtg agacacctga 960

ccgaccgctg agcgactgac tggtccacag cgccggcaag 1000

<210> 5
<211> 2506
<212> DNA
<213> Cricetulus griseus

<400> 5
tggtcggtgg ttaagagcac tggctgctct ttcatgggac cagggattaa aggcatgcag 60

cagtaaactg ggcttagtga cttctgtctt catactggac tggtacagtc ccaaggaaga 120

tcaatgttat gacagtatta caagccttac tgaaagtggt gtatgatgca acatctgtag 180

aaaagatggt gttgactgag tcaccaacat aacctttgag gaacaagaaa ggagaaattc 240

ctgaacagtg actcacaagc tcacatttta gtgaactgtg tgtaatgttc cagtagtatt 300

cagacagtct acttatgaag ctcaagatac atttaatggg aatactggag tcatttcctg 360

cccgtgacaa catcctaagc atctcctata agcatgtata taagtaagca catgggaggc 420

agagacagta gatctgagag ctccatccca ggggatggat atcagtcagt tgcctagcat 480

gcacagaatc ttgggtcaag tcccaactgg acacagtaat gtatgcctat tagtcccaac 540

acttggaagg tattggcaga aggttcagga gttcaaagtc atctgctaca aagtgttgag 600

gctagcctgg gttacatgag tctccatctt taaaaaaaga aaaaagtggg gctggaaaga 660

tggctcagtg gttaagagca ccgcctgctc ttccaaaggt cctgagttca attcccagca 720

accacatggt ggctcaaaac catctgtagt gaaatctggt gccctctgtg tacaagataa 780

atgaatgaat cttaaaaaaa aaagtcagtg ggtggtggtg gcgcacacct ttagtcccag 840

cactcgggag aggcaggtgt gagttcgaga ccagcctggt ctacaagagc tacttccagg 900

acaaagcctc caaagccaca gagaaaccct gtctcgaaaa accaaaccaa accaaaccaa 960

aaaagtcaat agcataagct acagatcaac caggttatca attctacctg taccactcac 1020

cagtgactat tctatttagc cacccccccc ccaatgatct cttctggaaa atgggaaaca 1080

tctaccaaga attaatcaaa ggactaaatg acacatgcaa aaaaaaaaaa accttagaac 1140

agtgttttaa gcaggataag tagttcaaga ccagtttgga ccatgtctca aaactaaagg 1200

aacaacgaag tacatttagt atttttttgca acatgttatt attacatagc atcaggaaga 1260

caatttttttc tttgtctgct aaatgccttt gtcatatcag acctatttca agagtcagga 1320

tagaatggtg tcaagaaggg atgaggaagg acttgtaaat tataaccaag ccacaaatga 1380

aaatgataga caaggatcgg gaacattatg gggcgacaag ctagagaaaa aaaatgatat 1440

attccagggt ggaaagtgct cgcttgacta ttcatagaac agaatagcca cagcatagcg 1500

gggggctcag tactaggttg caaatggcca ggccaattct gggacttaac cccaagaaaa 1560

gaaaaattgg caaggccagg atagacaaat gcagctggcc taggggtgaa gggaaaacag 1620

ttggctgaga agagccacga ttcgcagaga ggcagaacac agactaggac ccagctcgag 1680

acgtgcaggc cgggtgggta acatagagcc cgggcgctcg gctacccgag aacgtgaggg 1740

aggcttggaa gggcagagat gcgttcccag gcgaccacag catctatgct gaggctgagc 1800

agctcgggac ccgaggggac ttaggaggag aaaaggccgc atactgcttc ggggtaaggg 1860

acagaccggg gaaggaccca agtcccaccg cccagaggga actgacacgc agaccccgca 1920

gcagtccccg ggggccgggt gacgggagga cctggacggt taccggcgga aacggtctcg 1980

ggttgagagg tcacctgagg gacaggcagc tgctgaacca ataggaccgg cgcacagggc 2040

ggatgctgcc tctcattggc ggccgttgag agtaaccagt agccaatgag tcagcccggg 2100

gggcgtagcg gtgacgtaag ttgcggagga ggccgcttcg aatcggcagc ggccagcttg 2160

gtggcatgga ccaatcagcg tcctccaacg agaagcgcct tcaccaatcg gaggcctcca 2220

cgacggggct ggggggaggg tatataagcc aagtcggcgg cggcgcgctc cacactggcc 2280

aagacaacag tgaccggagg acctgccttt gcggctccga gaggtaagcg ccgcggcctg 2340

ctcttgccag acctcctttg agcctgtctc gtggctcctc ctgacccggg gggcttctgt 2400

cgccctcaga tcggaacgcc gccgcgctcc gggactacag cctgttgctg gacttcgaga 2460

ctgcagacgg accgaccgct gagcactggc ccacagcgcc ggcaag 2506

<210> 6
<211> 2006
<212> DNA
<213> Cricetulus griseus

<400> 6
tcccaactgg acacagtaat gtatgcctat tagtcccaac acttggaagg tattggcaga 60

aggttcagga gttcaaagtc atctgctaca aagtgttgag gctagcctgg gttacatgag 120

tctccatctt taaaaaaaga aaaaagtggg gctggaaaga tggctcagtg gttaagagca 180

ccgcctgctc ttccaaaggt cctgagttca attcccagca accacatggt ggctcaaaac 240

catctgtagt gaaatctggt gccctctgtg tacaagataa atgaatgaat cttaaaaaaa 300

aaagtcagtg ggtggtggtg gcgcacacct ttagtcccag cactcgggag aggcaggtgt 360

gagttcgaga ccagcctggt ctacaagagc tacttccagg acaaagcctc caaagccaca 420

gagaaaccct gtctcgaaaa accaaaccaa accaaaccaa aaaagtcaat agcataagct 480

acagatcaac caggttatca attctacctg taccactcac cagtgactat tctatttagc 540

caccccccc ccaatgatct cttctggaaa atgggaaaca tctaccaaga attaatcaaa 600

ggactaaatg acacatgcaa aaaaaaaaaa accttagaac agtgttttaa gcaggataag 660

tagttcaaga ccagtttgga ccatgtctca aaactaaagg aacaacgaag tacatttagt 720

atttttgca acatgttatt attacatagc atcaggaaga caatttttc tttgtctgct 780

aaatgccttt gtcatatcag acctatttca agagtcagga tagaatggtg tcaagaaggg 840

atgaggaagg acttgtaaat tataaccaag ccacaaatga aaatgataga caaggatcgg 900

gaacattatg gggcgacaag ctagagaaaa aaaatgatat attccagggt ggaaagtgct 960

cgcttgacta ttcatagaac agaatagcca cagcatagcg gggggctcag tactaggttg 1020

caaatggcca ggccaattct gggacttaac cccaagaaaa gaaaaattgg caaggccagg 1080

atagacaaat gcagctggcc taggggtgaa gggaaaacag ttggctgaga agagccacga 1140

ttcgcagaga ggcagaacac agactaggac ccagctcgag acgtgcaggc cgggtgggta 1200

acatagagcc cgggcgctcg gctacccgag aacgtgaggg aggcttggaa gggcagagat 1260

gcgttcccag gcgaccacag catctatgct gaggctgagc agctcgggac ccgaggggac 1320

ttaggaggag aaaaggccgc atactgcttc ggggtaaggg acagaccggg gaaggaccca 1380

agtcccaccg cccagaggga actgacacgc agaccccgca gcagtccccg ggggccgggt 1440

gacgggagga cctggacggt taccggcgga aacggtctcg ggttgagagg tcacctgagg 1500

gacaggcagc tgctgaacca ataggaccgg cgcacagggc ggatgctgcc tctcattggc 1560

ggccgttgag agtaaccagt agccaatgag tcagcccggg gggcgtagcg gtgacgtaag 1620

ttgcggagga ggccgcttcg aatcggcagc ggccagcttg gtggcatgga ccaatcagcg 1680

tcctccaacg agaagcgcct tcaccaatcg gaggcctcca cgacggggct ggggggaggg 1740

tatataagcc aagtcggcgg cggcgcgctc cacactggcc aagacaacag tgaccggagg 1800

acctgccttt gcggctccga gaggtaagcg ccgcggcctg ctcttgccag acctcctttg 1860

agcctgtctc gtggctcctc ctgacccggg gggcttctgt cgccctcaga tcggaacgcc 1920

gccgcgctcc gggactacag cctgttgctg gacttcgaga ctgcagacgg accgaccgct 1980

gagcactggc ccacagcgcc ggcaag 2006

<210> 7
<211> 1507
<212> DNA
<213> Cricetulus griseus

<400> 7
aattctacct gtaccactca ccagtgacta ttctatttag ccacccccc cccaatgatc 60

tcttctggaa aatgggaaac atctaccaag aattaatcaa aggactaaat gacacatgca 120

aaaaaaaaaa aaccttagaa cagtgtttta agcaggataa gtagttcaag accagtttgg 180

accatgtctc aaaactaaag gaacaacgaa gtacatttag tatttttgc aacatgttat 240

tattacatag catcaggaag acaatttttt ctttgtctgc taaatgcctt tgtcatatca 300

gacctatttc aagagtcagg atagaatggt gtcaagaagg gatgaggaag gacttgtaaa 360

ttataaccaa gccacaaatg aaaatgatag acaaggatcg ggaacattat ggggcgacaa 420

gctagagaaa aaaaatgata tattccaggg tggaaagtgc tcgcttgact attcatagaa 480

cagaatagcc acagcatagc ggggggctca gtactaggtt gcaaatggcc aggccaattc 540

tgggacttaa ccccaagaaa agaaaaattg gcaaggccag gatagacaaa tgcagctggc 600

ctaggggtga agggaaaaca gttggctgag aagagccacg attcgcagag aggcagaaca 660

cagactagga cccagctcga gacgtgcagg ccgggtgggt aacatagagc ccgggcgctc 720

ggctacccga gaacgtgagg gaggcttgga agggcagaga tgcgttccca ggcgaccaca 780

gcatctatgc tgaggctgag cagctcggga cccgagggga cttaggagga gaaaaggccg 840

catactgctt cggggtaagg gacagaccgg ggaaggaccc aagtcccacc gcccagaggg 900

aactgacacg cagaccccgc agcagtcccc gggggccggg tgacgggagg acctggacgg 960

ttaccggcgg aaacggtctc gggttgagag gtcacctgag ggacaggcag ctgctgaacc 1020

aataggaccg gcgcacaggg cggatgctgc ctctcattgg cggccgttga gagtaaccag 1080

tagccaatga gtcagcccgg ggggcgtagc ggtgacgtaa gttgcggagg aggccgcttc 1140

gaatcggcag cggccagctt ggtggcatgg accaatcagc gtcctccaac gagaagcgcc 1200

ttcaccaatc ggaggcctcc acgacggggc tgggggggagg gtatataagc caagtcggcg 1260

gcggcgcgct ccacactggc caagacaaca gtgaccggag gacctgcctt tgcggctccg 1320

agaggtaagc gccgcggcct gctcttgcca gacctccttt gagcctgtct cgtggctcct 1380

cctgacccgg ggggcttctg tcgccctcag atcggaacgc cgccgcgctc cgggactaca 1440

gcctgttgct ggacttcgag actgcagacg gaccgaccgc tgagcactgg cccacagcgc 1500

cggcaag 1507

<210> 8
<211> 1109
<212> DNA
<213> Cricetulus griseus

<400> 8

cgggaacatt atggggcgac aagctagaga aaaaaaatga tatattccag ggtggaaagt 60

gctcgcttga ctattcatag aacagaatag ccacagcata gcgggggget cagtactagg 120

ttgcaaatgg ccaggccaat tctgggactt aaccccaaga aaagaaaaat tggcaaggcc 180

aggatagaca aatgcagctg gcctaggggt gaagggaaaa cagttggctg agaagagcca 240

cgattcgcag agaggcagaa cacagactag gacccagctc gagacgtgca ggccgggtgg 300

gtaacataga gcccgggcgc tcggctaccc gagaacgtga gggaggcttg gaagggcaga 360

gatgcgttcc caggcgacca cagcatctat gctgaggctg agcagctcgg gacccgaggg 420

gacttaggag gagaaaaggc cgcatactgc ttcggggtaa gggacagacc ggggaaggac 480

ccaagtccca ccgcccagag ggaactgaca cgcagacccc gcagcagtcc ccgggggccg 540

ggtgacggga ggacctggac ggttaccggc ggaaacggtc tcgggttgag aggtcacctg 600

agggacaggc agctgctgaa ccaataggac cggcgcacag ggcggatgct gcctctcatt 660

ggcggccgtt gagagtaacc agtagccaat gagtcagccc ggggggcgta gcggtgacgt 720

aagttgcgga ggaggccgct tcgaatcggc agcggccagc ttggtggcat ggaccaatca 780

gcgtcctcca acgagaagcg ccttcaccaa tcggaggcct ccacgacggg gctgggggga 840

gggtatataa gccaagtcgg cggcggcgcg ctccacactg gccaagacaa cagtgaccgg 900

aggacctgcc tttgcggctc cgagaggtaa gcgccgcggc ctgctcttgc cagacctcct 960

ttgagcctgt ctcgtggctc ctcctgaccc ggggggcttc tgtcgccctc agatcggaac 1020

gccgccgcgc tccgggacta cagcctgttg ctggacttcg agactgcaga cggaccgacc 1080

gctgagcact ggcccacagc gccggcaag 1109

<210> 9
<211> 609
<212> DNA
<213> Cricetulus griseus

<400> 9
ggaactgaca cgcagacccc gcagcagtcc ccgggggccg ggtgacggga ggacctggac 60

ggttaccggc ggaaacggtc tcgggttgag aggtcacctg agggacaggc agctgctgaa 120

ccaataggac cggcgcacag ggcggatgct gcctctcatt ggcggccgtt gagagtaacc 180

agtagccaat gagtcagccc ggggggcgta gcggtgacgt aagttgcgga ggaggccgct 240

tcgaatcggc agcggccagc ttggtggcat ggaccaatca gcgtcctcca acgagaagcg 300

ccttcaccaa tcggaggcct ccacgacggg gctgggggga gggtatataa gccaagtcgg 360

cggcggcgcg ctccacactg gccaagacaa cagtgaccgg aggacctgcc tttgcggctc 420

cgagaggtaa gcgccgcggc ctgctcttgc cagacctcct ttgagcctgt ctcgtggctc 480

ctcctgaccc ggggggcttc tgtcgccctc agatcggaac gccgccgcgc tccgggacta 540

cagcctgttg ctggacttcg agactgcaga cggaccgacc gctgagcact ggcccacagc 600

gccggcaag 609

<210> 10
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-KpnI-F

<400> 10
ggggggggtac ctatagccca ggcacacatg aacttg 36

<210> 11
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-HindIII-R

<400> 11
gggggaagct tcttgccggc gctgtgggcc agtgct 36

<210> 12
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> hEF1ƒ¿-NheI-F

<400> 12
gagtgggcta gcgaattggc tccggtgccc gtcagtg 37

<210> 13
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> hEF1ƒ¿-HindIII-R

<400> 13
gagtggaagc ttcctcacga cacctgaaat ggaag 35

<210> 14
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-NotI-F

<400> 14
gggggggcggc cgctatagcc caggcacaca tgaacttg 38

<210> 15
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-XbaI-R

<400> 15
gggggtctag acttgccggc gctgtgggcc agtgct 36

<210> 16
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> hEF1a-NotI-F

<400> 16
gagtgggcgg ccgcgaattg gctccggtgc ccgtcagtg 39

<210> 17
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> hEF1a-NheI-R

<400> 17
gagtgggcta gccctcacga cacctgaaat ggaag 35

<210> 18
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> HC-F

<400> 18
tggctgaacg gcaaagagta 20

<210> 19
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> HC-R

<400> 19
ttggccttgg agatggtctt 20

<210> 20
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Gapdh-F

<400> 20
gtattggacg cctggttacc ag 22

<210> 21
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Gapdh-R

<400> 21
agtcatactg gaacatgtag ac 22

<210> 22
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> hRPS7-XhoI-F

<400> 22
gggggctcga gtgtatatta acagcacatt a 31

<210> 23
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> hRPS7-HindIII-R

<400> 23
gggggaagct tcggctttct cctgggagaa c 31

<210> 24
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-NotI-2500F

<400> 24
gggggggcggc cgctggtcgg tggttaagag cac 33

<210> 25
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-NotI-2000F

<400> 25
gggggggcggc cgctcccaac tggacacagt aat 33

<210> 26
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-NotI-1500F

<400> 26
gggggggcggc cgcaattcta cctgtaccac tca 33

<210> 27
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-NotI-1100F

<400> 27
gggggcggc cgccgggaac attatggggc gac 33

<210> 28
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-NotI-600F

<400> 28
gggggcggc cgcggaactg acacgcagac ccc 33

<210> 29
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-human-NotI-F

<400> 29
gtgttgcggc cgcacagtag ggaggggact cagagc 36

<210> 30
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-human-NheI-R

<400> 30
gtggggctag ccttgccagc cagttgggca gcag 34

<210> 31
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-mouse-NotI-F

<400> 31
ggtgggcggc cgcatggtgg aaagtgctcg tttgacc 37

<210> 32
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-mouse-XbaI-R

<400> 32
ggtggtctag agccggcgct gaggaccagt cgctc 35

<210> 33
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-rat-NotI-F

<400> 33
ggtgagcggc cgcctcaacg gagaagggct ccggac 36

<210> 34
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Hspa5-rat-XbaI-R

<400> 34
ggtaggtcta gacttgccgg cgctgtggac cagtc 35

<210> 35
<211> 8450
<212> DNA
<213> Homo sapiens

<400> 35
attttgcttg aaaggatagc atcaaggaag tgaaatgaca acccacagaa tgagagataa 60

ttttgcaaa tcatgtatct gataagggac ctgtagtcag aatatgcaaa gaacccttac 120

aattcaataa gacaacccaa tttaaaaaca ggcaaaggat gtgaataggc atttctccaa 180

agatacggaa aaacggccaa taagcacata aaaagatgct caaaatcatt tgccatttgg 240

gaaatgcaat caaaaccaca atgaggtatc acttcacgcc cattagggtg gctatagatc 300

agaaagtcag ataacatgtg ttggcaagca catggaaaca ctgaagtcct tacacactgc 360

tggtaggaat gtaaaatggt gcagccactg tggaaaacag ttttccaatt tctcaaaatg 420

ttaaacacag ttatcataca cccaagcaat tctactctta ggtatatacc caagagaaat 480

gaaaacatat gtcttcacca gaacttgctg ttcacagcag cattatgcat aatagaccaa 540

aagtggaaac aactcaactg cccatcaact ggtgaatgga taagtaaaat gtgatgtaac 600

cagtcattgg actgtcattc attaataaaa agaacaaggt actgattcat gttctaacat 660

gagtgaatct tgaaaacact atgctaaatt aaagaagcca gtcacaaaag gccgtgtatt 720

gcatgatttt atatatacat gaacttttat atatatataa ttatatatat tatatataat 780

tttatatata taaatttcta tatataaata tataaaatca tatatatgat atatattttt 840

tcatatacat catatatatt tacaaaaatt atatatcata tatcatatga tatatgagat 900

atatatcatg atatatatga tatatgatat atatcatatg agatatatga tatcatgaga 960

tatatgatat catatgatat atatgatata gatatcatat gatatatata taatatatat 1020

atgatagata tattatatat gatagatatg atagatatca tattatatat gatagatatg 1080

atagatatca tattatatat gatagatata gatatcatat tatatatgat agatatgata 1140

gatatcatat tatatatgat agatatgata gatatcatat tatatatgat agatatgata 1200

gatatcatat tatatatgat agatatgata gatatcatat tatatatgat agatatgata 1260

gatatcatat tatatatgat agatatgata gatatcatat tatatatgat agatatgata 1320

gatatcatat tatatatgat agatatgata gatatcatat tatatatgat agatatgata 1380

gatatcatat tatatatgat agatatgata gatatcatat tatatatgat agatatgata 1440

gatatcatat tatatatgat atcatatata taccacatac atcatatata catcatatat 1500

acatcatata tatcatacat atatatgaac tttccagaat aggtatatca ataaagacag 1560

gaagtataca agtggttgcc acagcctgag aggagcaggg aatggtgagt gactgctaat 1620

ggatatggca ctttttttgg ggggtgatga aaatgttctg gtcagacaat ggcaattaca 1680

aaactgtata cacacgaaaa accaaagaat cacacacttt aaaagggagg atttagctcg 1740

gcatggtggc atgcgcctgt actcccagtt actcgggagg ctgaagcagg actgcttaga 1800

gcccaggact tcaaggctgc agcgagctat gatcgctcca ctgcactcca acaaggatga 1860

cagtgcgaga cccgttttct aaataataat aataataata ataataaata acccaaggta 1920

cccagttcac atgcaaaacc actggtaaac ataaattatc tccaagtaat ctagaaagaa 1980

aatgagcaca taagacgtct tctaaaaaca cacatatatt tctttacatg ttacatttaa 2040

cgtaaaaatc agctatgcag aagttacatg aacattttat gttggaaagg taaatgacta 2100

ttattaatac agaatggtta agtacattta tgtttttatg tacaaacgca taaaaggaaa 2160

agcatcctta aaataaacac catcaatggc tcctcggtgg tcacaaaaca aaatcctcac 2220

acctttgtct tccttcacaa ttgagcttta tccacctttt caggcttatc tcccattatt 2280

acctgacaca aacttgggtg ggccagagtt tccactgacc atcccccgac tattcatcca 2340

acactatgtt cactgcctcc cattcctgac catttgcctt ttgtcttcaa ctaattctgg 2400

ggacgttttg tccaaataaa tgatccatat tcttgaaggc tggaatcaag tcctattaca 2460

aatatatttt ctcaccctct ccagagcata gcaacccagc atctactggc ctctcacagc 2520

tctaaccatc cacaacccta agctggcttc tcatcaaacg ggtacttttc accacccaaa 2580

ttcaattaat tcactcttac aataatgaag aatagtcgcc tacagcctac cttttccagc 2640

cttgattcaa tcatttatca attttatctt caaagtccct cacttcaggg agatgatata 2700

tcagctttca cccagagtcc taaagaaaac agcactcttg ccaatgacat agtgccacct 2760

agtggcaaca taaggtaaat cacagtggca gtagaaggat ctccacacta cttttacagg 2820

aatgcactgc aggtaaaaaa taagaagcta cagtactgtt tggcaggaca atttgtttca 2880

tacgtgcata ctatcgccct gactaaatta actcgcaagt cttacaggta ttatttgttt 2940

tcagttccat gcacagatta gccatttagt acttactaaa tcaaactcaa tttctgaagt 3000

gtcttacacc aatatattca tgcacatatg gttaaaattt tccttgagga tctatcatgt 3060

gagagtgtgg cttattataa caagtaaaca gaacaaataa atacaaaatg aaaagaaatc 3120

gtatgattta ctcgcatata agggagcttg ttgtggatta agtttcatga cccaggacac 3180

tgaaacagaa atggaataaa tgagaataaa attaaaagtt gtcatcaaaa atatagaagc 3240

catctaaaga cctaggtgtc aagcatagct ctatgagtac aatcccgtgc ctgagattac 3300

catatgccca gctgtatgct atacactaag agatttagga aggaagcggg gtcagggatt 3360

gaccccagac tccatctttt caagtgggga agaaagatct tccgattgaa aaataaaggc 3420

aaaaaaggct tcaccgtcac agaagtttca acaaccaaca ggatatttaa aacagttatc 3480

aaagcaaaac cattgtatgt tcacttacat ttttacatag tccctcaaac tcacaaaatg 3540

ctgtttactc agggacttct tccggtctta ctagggagcc tggaaagtga cgggaggatt 3600

gcaagggacc actagaaccc tcttcctcaa ttccccttct ctgagaaggg aggctacagc 3660

ttgcctctct aaccactaaa aggcatgacc ctcctcaaag ttaatagccg gattccctga 3720

tagatatttt cactaaatga attctcataa aactctcact aagatttaga gaaggcttcc 3780

agggttgaat tcctgaacat taagaacagc atgtttttta aaagtttaac ttggtgattg 3840

gaccaggact tcatctaggc tatgaatgct cagaatggta ggtcctttac caaacagctt 3900

gagtttgtgt ataaagtgat ctcatcctct taagagtcag agaaacagaa ccaagcgact 3960

tcactataat ttgatctgag gaagtttctt actcacaata ggtaaatgaa ggcacatact 4020

aaccagcaat ataaacaaca atatcaagtg tcattcacac atgcaaaaaa cagacaaaat 4080

cccaaactct gtgttctaac aaatcgcaaa aacctcacta acaataaatt gaaatgacca 4140

aatgtttgga ctgaaaagca atgccttggt agcctagcca tgcctaactc aaataacaga 4200

accatctcga tgttaaaatc ctcacagatc aagctgtgta tgtctcgggt caagacttcg 4260

ccaaaaagca gtgagcacac acttaagagg gaaaaaatct acctcagcct cctaaatgca 4320

atcatctcta cacgagttgc aggccccaag cttcaacgtg ttctgctgga caacgcagta 4380

gaaagctgac aagcaggtgg ccttcccaca ctgactgaac cacctccatg cccatgtcca 4440

ttcattttct tgcccacccc atgtgctata acagacctcc tggctcaggg cactctttcc 4500

ttcctgactg ccttcactta atgactttgt acttttaggt gcaaaaatta tctgcagaaa 4560

tccacactga aaaccaagct tgagaaaggc agcaataacc aacattttta caagaagaac 4620

aaggtcaata tcaagcccat cagattcaaa tagcaagcat ggatgaaaat gaaagattga 4680

aaggcttgag tgccttctta atgtattaaa tatccattta atttacaatt aagctcactg 4740

tgctcactgg ccttttaatc agctttccag gtcctgctca gacttgccta ggacatggga 4800

atgaaagaac ctatacattt atggaccaat ctaccttaac taacttgtca agtgttcctg 4860

catcaagcag aagaaacatc agtgaaactg atacaggaat taacccctg ttaatccata 4920

aaacttaaag gagcgggatc caatcttctg gcttccctgg gccacgctgg aagaagaatt 4980

gtcttgcgcc acacataaaa tacacgaaca ctaataatag ctgctaagct ttaaaaaaat 5040

tgcaaaaaag gaaaatctca taatttttg tttgttgtga ggtggagcct cactctgtca 5100

cccaggccgg agtgcagtgg caccatcttg gctcactgca acctctgcct cctgggttca 5160

agccattctc ctgcctcagc ctcccgagta gctgggatga taggcgtgtg ccaccatgcc 5220

cagctaattt tcgtattttt agtagagacg gggtttcacc atgttggcca ggctggtctc 5280

aaactcctga cctcaggtga tccacccacc tcggcctccc aaagtgctgg gattacaggt 5340

gtgagccacc gtgcccggcc aatgttttaa gaacgtttac gaatttgtat tgggccacat 5400

tcaaagcctt cacaggctgc atgcagcctg caggccgcgg ttggacaagc ttggattaga 5460

gaaatctaca gagacaaact agtgacttag tagccctctg atagctcatg atttgcaaga 5520

aacttaggat gactatgtgt aaagaccaca aacatcaatt taactgaatg gttcccgcca 5580

cactggaatg aggaagctga gcaaactcag aggactctaa gaaagggctg atgtcatctg 5640

aactgttcgg aattataaac tcctctaaac atgtttcaaa gccagaactt gtaggagttg 5700

ttctgataca cggattaaaa gagggatgac aaagtgtctg tcccccacac tggtcaaagg 5760

gacaggtcat tgttatgctg gcaatgcagg ctgctgaaaa gaatgtatct gtcaaaagta 5820

atcaaagtaa tgaccccaga aggctccaga aacagactgg taaattcagg ttgctttcag 5880

acttccacaa tgctggcaca caaggggaaa gacaaaacta acatttacag agcattatat 5940

ttgatattac atttaatccc cattaaaaag atactatttc ccgtttcact agtgaaaaag 6000

ttgatctttc aaaggttaaa ttatttaaca ccaaggtcaa agggtaagtt ggagagacca 6060

gattcaaacc cagtctgaca ttaaaacatg tgttttcccc ccacatcgtc tcctgctaat 6120

aacctcaaat ctaaaaactg acttgcccta caccttgagc cccatcctac aaactctccc 6180

tgacgttatt aattcagctg tcactgtgca cctacaacgt gccagacacc atactcctca 6240

acactctgta ggcacagaag gaacagataa aaatccctac cttcatagat attattctag 6300

gggtaacaca ggtaaataaa acattaaaat agttttcaca tagtagcaaa ttccatatag 6360

caaaataaaa cagaagaagg aatagcaaat gagggagatg ccctcttaaa catggtgctg 6420

agggaaggcc tccctgagaa agatatcatt taccccaaaa ataaaaaagc aagtaataga 6480

aaaaacaggt aaaaggtgtt ctagacactt aaacctgcca cattgagaac tcagggttct 6540

gatgcaaaac ctcgctgcat agaatgcatt aacttatttt tatacattta aacaaacaaa 6600

ctctacttaa gaactgtgtt ctaaaggaag gagcatatta caggaaggca atttttggtc 6660

agagtagaca cacttaaaaa ctaaacctat tgaaagacca agaacaactg aaagtctttg 6720

ctttgtcaga tttttgacca aaaggaaaat taaagaaaca caccgtgccc atccaatgat 6780

ttcaccaagg aattttaaga gagaaaatcc tacttcttcc tcacccagta gccagtgaaa 6840

tgactgagca aattcacaag ttcactgggg ctgctttcat gtaacacagg gacaacacat 6900

gacagacaca gtggaaccct acaggttgcc tagtatttga aagactgtga agaggaggag 6960

atgtcaaaat tcaaagtctt aaatgatgta gttttaagta tgttcagcaa tttcaccact 7020

cagtagtaaa gccagctaca gttgaaagca atcagaaatt tgaggggtgt gaaataagca 7080

gaagcacaga agttaaggat ttgtattctt cccacatttt ccactttatt ttatactgct 7140

gagaaaaaac aaatttaata gttttctgct gtataagaga gacacattca ctttatgtca 7200

cagtaagagt cactcaattt taatacaact atctcaatgt ataaattaac attctccccc 7260

ctgcccacac atagtaagtc tcttatgatg ttgctgatta gagaagcaaa agttgccgct 7320

acaattctct tcctgcattt taatataaac aatcatcagt cttttcttca tagagtgcag 7380

tgtgggcact atcatcagaa tgtaccagca ctgggtgtgc aaagtttaca aagattagca 7440

agagcaaaag tgttgagatt tttgaaattc atgctgctgc aaagaagtat gtaaaaactc 7500

actcaccata gaggaccaca cagaaactca ggcatgaagt tatatggctg tgtgagtggt 7560

ttgggagaag gaacggaaag cacttccacc aacctatatg cctgagcaaa ttaatgcaaa 7620

acctcagaag ctacaaaaaa gtttatctac ctaaattaaa attggtgtcc acagcagtag 7680

ccagcaaaat gcctgcgaag cgcaaagtgg taaatatttt agggtctgta ggtcatatgg 7740

tctctgttaa acaatatgta aatgaatggg tgtggctgtg ttccaataaa acttcattta 7800

taaaaagagg cagcatggta catccagtca gcaagctata atgtaccaac ccccggtcta 7860

acactaacca aatacctctt aataagccaa agaaactgtg tcctcttagg ccggaagcgg 7920

tggctcacac ctataatccc agcattttgg gaggccgagg cggggagatc acctgaggtc 7980

aggagtttga gaccatcctg gccaacatgg tgaaacccta tttctactaa aaatacaaaa 8040

attagccagg cgtgctggcg ggcgcctgta atgccaacta ctggggaggc tgaagcacga 8100

gaatcgcttg aacccaggag gcagaggttg cagcgagcct agatcacgcc attgcactcc 8160

agcctgggca acaagagaga aactccgtct caaaaaaaaa aaaggaaata aaagtataca 8220

aagtgaaaac aaagaaatta aactgccctt atttgccagt gacattactg tctatgcaca 8280

aaattccaaa aatctacaaa aaagcttcta gtactaaaaa tgagtttagc aaggttgtag 8340

aatccaaggt cagcatataa cataaaatca ccttcctata tactagcaat caccaactgg 8400

aaattgagaa gtatcattca caacagtacc acaaacatga aataaatgtg 8450

<210> 36
<211> 8420
<212> DNA
<213> Homo sapiens

<400> 36
tcttagtatg gtaaaccttt tgaagtagat tcaaatgaga atgggaagag agaaaaggga 60

gagaagcaac ataagaaatc tcttttaagg aattttatat agagagaaac agaggaatca 120

gttgatagtt ggaaattatt ttaaagaaaa tgggttattt taaagaaaaa aggtattaca 180

acatgtttgc actattgtgg gaataatcaa gttgagacag aaaattattt tttaaggaag 240

agtctaattg ctgaagtgaa agagaatgaa tgagaccctg tgcataagtg tgatcagata 300

ggagcatgta cagctcaagt aagaacagga agaaagagac aataaacatg tacagatagg 360

atgggctggt cgatgtggtg gtgaaaagac atgcgagtta ttactgatta cttctatttc 420

cccagtgaaa taggaagcca ggttcataaa ccaaaatgaa gaggagcgag gcagtattgg 480

aagttcagga aaagtaatag gtgtaaaaat atgtaaagta gaattaccag ggagtatgaa 540

gatacatttc caattaagga tgaagaattt aaagtgaggc cagccaatac ccctgctttg 600

cttcagctac atcagctgca taggttcagg cacagaatac atggaacatt gtatttaaat 660

agggcctgga ttttacaaaa gtaacacaat gaagaagaga gatgcaaggc tatttgaggg 720

tgtttgtggg agagattgta aaatattagc taagtaagaa ggggactgca aattttagtg 780

gtataaagga atgaggaaaa gtgtaaatac agtggggtca aagaatgttt ggagccaagg 840

cactagaggc aattagctga aaatgtaggt gattattggt gagtgacatg gtttaaatga 900

aaagtataga agggtacaat tatccatcat gaaaagttct agggtacaac taagatctga 960

gtagctgaag tagaatgaaa gtagaatgga cctttccata tccagccagg ttcagtgaca 1020

gaaggttagg aaacaaatta taaaccactt gagagaacat atcccctaag ttgtttttgc 1080

tatttttctt tcagcatata tttgttggaa tgccaactat gttcagttca attaatatgg 1140

gcttcttaaa taagggctcc agcactggat aatcctgcca tttattttga tacattccat 1200

cctgctgctc agatctattg gcatctacag gatgtctttt gagaagatgg gcattcacat 1260

ccctatgtcc tagcaaattt ccaactcaga aaaccacatt aggcttctct atatatcttc 1320

caactatttc aatggaaaat acaattctct gatttcttcc tatgatattt atcaaagaga 1380

atggtgcctg ccagttctag ggtgggggaa ctcaatacaa atcaccaacc tttagatgac 1440

accctgtctt caaagtgctt tcaaagtctg gcagaaaaaa agtacccagt ggctataaga 1500

ccacccagga gttcagtcat gcattctaag tagcagatca ctggaatgta attggctagt 1560

gagttcattt tactcttctc ttcttggtca catgttaccg cccttgtacc ctgcacgttc 1620

tctttcccag acttacaaag catgttctct tgaattcgtt ctctttttaa attcacacag 1680

tcttaatgat tcttctttca caagagtctt tcactcttac aattcagttc aagtcatcca 1740

catgcttatt atgagcaagg gtctgggact taggggaaaa gggaataaaa agatgaatga 1800

aatgtgatcc ctgcagtcca agagcttgct gtgaaaaagg aagtttggct tacattgcct 1860

ccctaatccc ttggctaggc cagaacagaa tattgtctaa aacctcctca cgtcagcagt 1920

cctctggggt ggtgactgga agtagaattt aaacaaaaat ataattgaca cataataatt 1980

gtgcatactt atagggtaca atctgatgtt tcgatatgtg tttaaatggg tgcattgtgt 2040

aatgatcaaa ttgaggtaat ttatccacca ccttgaagag agatttttca atattctcat 2100

tgcgaagaag caggaatttt tagcagacaa ctgagatgct tcttgttcac actaagtcat 2160

tctgacgatg gatttacata acttgttgtt ttttttgtgt gtgtgttttt gagacagagt 2220

cttactttgt cgactaggct gaagtgcagt ggcacaatct cggctcactg caacctccac 2280

ctcccgggtt caaacgattc tcctgcctca gcctcctgag tagctgggat tacaggtgca 2340

tgcaactagg cctggctaat ttttatattt ttaatacaga tgggatttca ccatgttggc 2400

cctgctggtg tcaaattcgt ggcctcaagt gatctaccag ctgcggcctc ccaaagtgca 2460

gggattacag gtgtgagaca ccaagcctgg tacatttaca tttcttatct ggatctttcc 2520

tttagtaagt gctaaggaat cctacttccc ccaatatttt ttcctatttc aatgttttag 2580

catgtatcat gttactactt tgcagacatt tgattttccc ctttgtttac tgtaaagtat 2640

atttttatag cctttgtaat agaagtattc taaaatctgc ctgcaaccta tctttctgac 2700

tctgcatttt agggaataat tctctgttgt ggaatgaaaa aaaaaacaga gcctgtggag 2760

tcagagatct catttcaaat tatagttatc cctaggaata aatctgagtg acaggtagta 2820

tagtataata ataagtataa agctatggtt aaggaaaact caacaacctt atctgtaaat 2880

tgggatgaca acagcctacg tcaaaaaaat gtgaaggtaa atgagataat gtaaggctga 2940

tacttagtaa gcaatttaaa aacacccaaa aaactattgc catgattact ctacttactc 3000

tatttctcta tgctccaggc aaatgaacta ctaatgaccc aggggtcctt ccccattctc 3060

ttcttcacaa ggaaatattc tctctctgtg tgctgtttat taaaatctac tgccccttt 3120

agaagccttt ccagatcatc ccatggccaa gaacgatcgc tgcttcctct tctttacata 3180

cagatgtttt tctcctgctt gacaattatt tttgtgcaat tattttcctt ttgattgtgt 3240

ttttaatgtc ccccccaccc cacaattttc cagactgttt gctccacgag agaggagacc 3300

atcatctctg tgctcaccgt tgtatgacca gtatcctgag gagtggctgt tacataatta 3360

catcaggcac tcaataaaaa tttgatgaat aaacactgga ttttaaggca ggtatcatat 3420

cttacatagc atatcatatc ttacatttta tgtccctcac ataaatacca cagagtgaag 3480

tatatgacag ataaggtcat ttctcttgat aagtacatag tccagtctga aacagatatg 3540

ccaaaaaaaa acaaaactgg agtaaacaag atgaattgtt ttaatagagg cactgtatta 3600

gtttcctagg actgccagaa caaatcacct caaacttagt ggctgaaaac aacaaaaatt 3660

tattgtctca cagttataga tgttagaagt ataaaattaa ggtgtcagtg ggattggttc 3720

cttctggggg ctgtggaaga gaatctgtcc caagccttca cactgtaaag tacagtactg 3780

gagggatagg acttcaactt gctctatctc agatagagag gagccatttg ttgtgaattg 3840

agaagagggg tatgttgaat ccataataag cacataaaaa cttggctggt tcataggaga 3900

agtaacatgt ttccagctct agtaaaaaac aaattgaagt ggcctataaa aaggtacaga 3960

gtacgacaga atgaaaaata aatgaacaag aatacagaga ggatgtggta aattatcatg 4020

tttccctaat atgttattgg acactaaatg gtattagaat tatttatcaa taataattct 4080

aaactgttgc aattgaaaga atatattaag tggtgttata tgagaagtgc cagggcattc 4140

tcatttctgt ccaatgggag aaacattttc gtttgagacc tccgtgaata atacagtctt 4200

ttagttagga gagctgcatt ttgagtggtg caggcagaat ggcgatctct cacccacaca 4260

aacactaaga tagagagaga cagagacaga gacagagaca gcagagagag acagagaaag 4320

gaagtacagg tactcagata gagataagcc atttcttgac attaagaaat aaagtagaat 4380

ccattggagg gaaataaaac tgcctcagga acagagttaa ttcacataca catgcaggta 4440

aacacacact gcttgatact tactgtggac tttgaaaatt atgaatgtgt gtgtgtgtgt 4500

gtgtgtacat tcagccctcc atatccatgg attttgcatt cacagattca accaaccatg 4560

aattaaaaac atttggaaat aacaaacatt aaaatataac aatacaacaa taaaaataat 4620

acaaataaaa aatatagtgt aacaactgtt tacatagcat gtatgttgta ttaagtagta 4680

taaatctaga gattacttaa tgtataccag aggatgcata ggctatatgc aaatactatg 4740

ccactttaaa ctgataagaa cagatactaa acttcatctt agccaaaagt cagagaaaca 4800

atataactat gccattttac ataagggact tgagctgagc atcctcagat ttcagtatct 4860

ttggagttcc tggaaacaat tccttgtttt atatatatat atgtgtgtgt atatatatat 4920

atatatatac acacatatat atatatatat atatatgata gctactgagt gacaggtgat 4980

attataccat accacttgtc actcagtagc tgtatatgca tatgtatata tatacatata 5040

catatatgtg tgtatgtgta tgtgtgtgtg tgtgtgtgtg tgtgtgtatg ctgtctttcc 5100

tcggtatcac agggaattgg agatatatat attcttttca gtacaaaaaa aattgaacac 5160

agatgggtat ggtaccagaa cagaaggtaa agacacatga aaaaaatttg caacaacatg 5220

aatggaactg gagatcatta tttgaggaga aataatccag gcacagaaaa acaagcattt 5280

tattatttta ggtgaaagac aaacatttta ttttaggtga aataatccag gcacagaaag 5340

acaaacattg catgttctca tttatttgtg ggatgtaaaa atcaaaacaa tagaacgtat 5400

ggaggtagac agcagaagga tagttaccaa aggctgcaaa gggtagtgta ggctttgagg 5460

gtgaggtggg gatggttatt gggtacaaaa aatagttaga aagaataaat aatatctagt 5520

atttaatagc acaacaggtt gactatagtc aaaataacat aattgtacaa tttaaatatg 5580

aaattaaata tatatacaag actagaacac caagttgaat gactccagct tgcgaaaccc 5640

acattgatca ccatgcttgc cccaagggaa gctgtacaat gtctggctcg tccagaaccc 5700

catcatttat cactagcaat ctattgtcca taatcatgtt taaattaata gcattttaaa 5760

ggtacaaata ttttttaaaa aacaaataat tatttaattc gccttttaaa agcttttttaa 5820

aaacgttttt aaaaactttt ttaaagtcct gaggactatt ttctttaaag tgctcagtta 5880

cagagctcca tatattgggc tatgatagcc ttacctgatt cttgccaaga atctagtgcc 5940

cagaaaatgc aaatacaaag taagcaactg aaaaataaac aaataagttg gaggtatgct 6000

acctgttgaa atatgaccta gcgcaaacac ctatgccact tgcttatgaa atcatatagg 6060

ttttcggtgt gcagttttga ctgaatgagg gagtttacgc tggaccacaa gggggcccct 6120

ctgtcaataa cgtactccat ttgtgtatta agtcaaaaat gaaatggaag agaaaagaaa 6180

catcgatgac cccaagtctc tttaattgaa tggaggtaaa agggaaacaa cgaatgagaa 6240

aagtactctg ccctttaag aatcttgcat tcacattcct gatgaagtta tttttcctcc 6300

tctcactgat tcccatttca ctctattaca tagcaccgtg ttccccagga gctcctgaat 6360

gaaggacatc actcagctgt gttaagtatc tggaacaata aatatactag tttcaatgtc 6420

taggctatgg gtattccttt ttactgaagg tatgacatat agctgcccag gcctgactaa 6480

attaatagta ataataatta ataatggcaa atttttattc tattaagtta cttggcttga 6540

cttgtagaaa tagcaacatt catctgaaat gccccctcct acacttatgt ctaaggacaa 6600

atcccacata caccacagat aacttcattt tacatgtttt attctgttac caaactaaat 6660

ttttatcata tagtctgttg ctcactgaac tcttcagtaa ttctcaacat accatgtaaa 6720

gcattaagca cagttccaac acagagcaaa tgagcaataa ctgttagtta ttataacatt 6780

attatgtgtt ttcagtgcat taaaccactg gtctgatacc tagcccaaca ttctattaaa 6840

ccacataatc cagttgaata atatatgata atataataaa atggcgataa gtgctaaata 6900

tccagataga aacacagatg gaatcagaca gctttcccaa gaaatagaga aaatagtaga 6960

taggcgatct aggcctaagc actctaagca gaagctaagt tatcacagga tatcttggca 7020

atctgtggca cgtgaaccct tttcttctgg agtctggaac tatgttgcaa ctctcacttt 7080

ctccctatct agagactcag tttgttccct tgtgattatc agcagttgag aaatccttag 7140

accttctgaa aggactactt tttaaattta tatatataat atttaaaata catatcttta 7200

tatataatat atatttaaat atataatatt taaattaata tatatttaaa tatataatat 7260

ttaaattaat atatatttaa ataaataaat ttatatttaa atatataata attaaaatat 7320

atttttaatg aacagagagt aaaggattat tttgaagaga aactcctggt tcccacttaa 7380

aatcctttct tgtttccaag tttttcaaat ggagccctct ttaccagctt gccccctcag 7440

agataagctg ttcccctact tattcagatc tgagatctga aaacattcct tttcctgtga 7500

gttcagctag gacaaagatg gagctttttg ataaaatttg gcaaacacat tttttaaaga 7560

tgaaaatttt taaaaattga aaaaaaaaca tttatagaaa gagacttcta atccaaattt 7620

aacttctcaa actatgtttt gaccggctag cataatgttt cagtctttct ggagaatgcc 7680

ccttgaaact gttttcttct acacaacttc ctcctttcct ttgactttcc tgctctggaa 7740

gggaagaaca ggaagaggac agatcaaatt actcaagagg aaggacaaga aataaggaac 7800

caaattatca acaattggag aaagaaagct gatgtcagta tcatttcata tatgattatg 7860

tcagagtcag gtggataagc caatcctgtt gaatagcata cttttcctgc tactcctgaa 7920

gggtaaagag gtctttctct tacaaagccg tcctagctag taatcttaca ggtgcaaaaa 7980

gcttgttttc atgttatttc ttagtaactc aaaatacctc taaagttata catattatga 8040

aagtactaca gtcacagtgc tgagaaaagg agtaaataag acaatgtata taaaaacact 8100

tggctcagcc cctggctctg tggttgataa atattaagtt agtattcatt attattataa 8160

tttccaaaga gtccattaaa agatatagaa gaagggaggc agcaataaca ctaagagaaa 8220

attccattat ctccaactat ttatcctcta gcccaaaata attgccatta gaaagagcaa 8280

ctttaacaaa aattttaagt tgcaatagat gttcaacttt aaatccatcc cagaaaaatt 8340

tctaaccaaa ggagcataga agatttgatc ttattttcta agtagtatag acttaattgt 8400

gagaacaaaa taaaaacttg 8420

<210> 37
<211> 8475
<212> DNA
<213> Homo sapiens

<400> 37

gcataacttg taagaaatgg agtgaggtct cagttcaaac tggcttctgt atgacttcaa 60

agccaaagtc agcaacttag aaggcaaaaa ttataattta gttggcaaat acgagaaaag 120

gtcagaaaca catgaaatga agctcaatag gaacacttac agggtagcag ggtagtagcc 180

tagggaaaaa agtcagacac taaaattgtt taaataggta agttcaaggg acaggtaaag 240

accttagtgg gtaagaagcc aatcagcaga cgaactgcaa gcaagcactg tctctctttc 300

ccttctgtct cctcttgtag taactgacca caattaaggc tgcctagggg aataatgaag 360

taatcctcct attatcagca atggtctgat ccagtgccag gcaccacaga caacttggtg 420

ttcagagaag atccttcaag atgaacaaag ggtcaaaata aaaaattcta gaagagagaa 480

gactgatcac aatttaatgt aaggcttgga aggaactgat ctctaccttc cttaacatct 540

caagaacttc ctcagattca ttggatgttg agtgtgtgtg agtctagtag aaaaatgaat 600

ttttgtttct taacttggat atgtgattag gatgttaata attaagtctg ggctaatatt 660

gaaggtatct tatgatgggc ttcttaaagc attgatcaca aagactgcat gttcataaac 720

tgagctgcac ttgttaggat tctagatgtt tgaaatttct tgtgttattt tggtctcaga 780

tttctagaca aattttctca aattcctatt tcacttttg acatatcatg agtgactcaa 840

atgtttgccc ttgagtcgga aaacacccag cattaggaat aggcacataa acataatact 900

tcaagcttca gatttaagct caattataaa gtgtttaaag gctgtgctga tagttcttct 960

gagtagaatt cctacaacta tgggtttgtc tataataaaa tgttcactct atattgaacg 1020

ccttatttaa aactcgaaat gtgtaagtag taataaagaa aatatgtcct cctgtaacca 1080

aagctaggac cgattacatg ttcacttgac tgacagatac aatcacctat attaggagca 1140

atcagcactt ccttacaaac taacaacttg agatgtagtg ttcccattgg ctatgaagat 1200

tttctttatt tactcagaat agtctgtagg atctgccagc tgcccctgat tataccagct 1260

gcacccaatg atcacagtga acattatttt acattctaaa taactggtgc aaggtgagcc 1320

atggttttct gagtttccta tcacctttgt gtttcaggtc ctcaaatgtt aatttgtaaa 1380

gctgctgttt caggcaaaac taacaaaatt agcatctaat caataaccat actatgtcca 1440

cccatatcct ataacacaga agtaggggaa gagtgagaaa ggtggaagtg gagaaataga 1500

ggcccaaaaa gaaagtttta tcacaggaat atctagatgt cttctgggat tgtctgttaa 1560

agagctgtga cactcatata aatgcagaat tactctcttt cttccttgtt ggttagaagg 1620

ccaagggtgc catggtaata ctaccaaaca tatatcaaag cttggcagga aaaatggtac 1680

cttcagaaat tttataatct gatatcaaat aggtcaagaa atataataaa actagtttct 1740

ttggtttcct tagaaacctg gaaaacttta aattagaaac ttagaaagct ttaaatcaga 1800

ctttgtagtt aaaaaaggaa attttagttc cttccagcat tagaattccg tgattctctg 1860

actctgagcc tggattaaat ctagcccagc tgagtggaaa cttaagtaac tagctggttg 1920

cctttagtga tcttccactt tatggctgct tccgcctaag aagttcatca tcgtgactta 1980

ctttctttgg ggcaaagtcg tgactaactt tctttggggc aaagttggaa agcagaggtc 2040

aaagtcaatc agaaatggga caaactcact tcctactgcc tggtgaaggg gccattttca 2100

gtagcccctt ttcaagatta gtttcattca agatttgata agctgttttg actttactat 2160

agatcttatt atccatgtca gttaagttta tgcttccact aaatctatct gaattcaaaa 2220

ggtaaaaagc taatgctcag tcttatcaga tttatcttat ttattaatag aatgtggatt 2280

tttttaagca tataacaata atagtaatga taggaccata aatgtggatg gctctttaca 2340

agtcactaac attacataaa ttcctcaaca acacactctg aggccataac aaacttttag 2400

aaataacaca attggctacg gaactccagc catctagctt catgggctcc cactttaatt 2460

tcaaaacaac agaactgtgc acattcattt acatgattag ggcagagctt aactgtatct 2520

catgtagcac ctacatcatt cttcagacaa acttattgcc ttttacagac aagaaaactg 2580

gggctcaaaa aaggacttgc ttataactgg ctaataaaga ggaactctgg gttcaaagtg 2640

agtccaattc tttcttccac ccacagcttc tgctaaagtc attacagaaa tgcatagagc 2700

agttcttcca cgttattgct taggtttcta aagagcagtg acctaataca acatgctcta 2760

taatttatta ctgatttaac tatttcacta aggattcact tttaactttt aacttgtaaa 2820

tatgtctaat aaacaccact gaaatagcaa cctctttctt catggccttg tggttgtaaa 2880

gcaagctagt aatatatgtc tgtggatttg tgctaataaa gttctataca cctcattaat 2940

tccacaaatc ctactgggta tttcttatct gccagatcct acgctaggta ctggatacac 3000

agtactgaac aaaatgggta caaatgagcc tcacagagct tgtttcattg aaaagcagag 3060

agatacacac taatcaacaa attaatagta acacactacg atgtgttttg aaggaaaatt 3120

agagcatcaa agagacggtg ttagcaggtg gaggggagct cttttagatg gagaatgaga 3180

atgcctccct aaagacatgg gaataaattg agatcacaaa aaatgagaaa tagccagcct 3240

tgagaagagc agaaggaaga acattcaaag gaaaagaaag tgcatactgg aaagcctgaa 3300

cactagagtt tggtgtatgt aaggagctga gcaatggtca cttgtgtgat aagatgtgtg 3360

gatgtggggt ggggggcagg ggtgagtccc acgcagctct taagtgtgtc ctcagactcc 3420

tgtggtttcc atcagccaca acctgaataa ctgtgtggta atccaaaaat gattacagat 3480

taaacatata aaaatatcat tacacccata gtacctaagc caaggacaca gtattctatc 3540

ttttcaatga agatctgcat gaagtaaaat tattatatat aattttaggt attgatatag 3600

atacatcagt ggatagatat agatatgtgt ctctggtata gaaaaaagtt ttaaagggat 3660

attaaaagtt cttatcttgc agggttgaag attgtggcaa ctttcatttc tttttaattt 3720

taagaaaaaa gtggtattat gggggattag catgtttgtg ggtatatgta tatttttaat 3780

taaaaaataa acaacaaaat gaaaacgttt ttcttctatg aaagcctaat aagaagaaat 3840

ttcagctgtt ttaacttagg gagctaaaaa catcaaatcc aagaatgttc tctggaactg 3900

agctcaatac atttttattt gagtaagaat tggatacatt tccatcccct tggggctcca 3960

gtctgtcaat attttacttt tcagcgataa aaagacacat gtagataatc acagtgacct 4020

cagtaacttt ccttctctta tttaagttta ttttatttct atcgtagttt tccctgttaa 4080

agatttttttc tttttgctta catatataat tttagagaat aacaatgcac acacaaaaaa 4140

ttcctcttgt tctgctagac ctggactttt tctctaatat atatctccat tttttgtctt 4200

ttttcagacg tattttggaa gcaaaggaga gaattgctat atagctgact tcctcttctc 4260

atcaacagtg ttttaacagt ttttaagcaa aagtcagctt tgtttatcta agatttttt 4320

tgctggcatt taacctaccc ctgcctcccc tttcccaagt ccacttcagc caacctctca 4380

ttcgacaggt accaccctct aacataactg aaataatgtc taccattact ggatcttgct 4440

agcaaagaat ctcaaatttt cccacttggt tgtaaattat tttgtaatct ctagtgttta 4500

aggtgcgctt gtcctatcta atcccctccc tggcaggaca ccttacagaa cctacccctt 4560

acactagtca ttaagcacca tcagggacgg atggctgtgt cactggtctg tttggtattc 4620

cctactgatc ctaccatgtg gtgattatct atgacttccc taatccctgg ctgccttagc 4680

tgggactggc tgacatgctt ctcaggttgc cgctggcttt acagtccttt actgcccatg 4740

ccactttgga gataggcagg gctagtactt ttctatataa gcccccaaac ttgactttgt 4800

gtttcacagt aggtgaaaaa gttgggtctc ttttctttta ctttttctttc cacaagatga 4860

taaagctagg ggaagcctgt ggacatggtt tatttctgca actgcaatga ttgattggtg 4920

cttcctgctg cttacttcct aaactttgtg ctcagtgtca gatccctagc agtttctatc 4980

ccctgctctg ctaaaaaaga atggatgttg actctcaggc cctagttctt tttaattaaa 5040

ttgtattttt gttatcatta ttattattat tattttgaga tggggtctta ctctgtcgcc 5100

caggctgaag tgcagtggtg caatcacagc tcactgtttt agcctcctga gtagctggga 5160

ctacaagcgt catgccacca tgcttctttt taatttttta aaatggtttt ctgccttcaa 5220

ttctaagcac ttctcaattg taaccaagag ataatacttt ttatgaattc ttaaagttat 5280

caacagatac tcaaagtttt agcaaagtct aaatgatatt aagcttgtcc ttattgccca 5340

agtgacttca atgactattt gttaattgca accaagggtc atttttaaa tgaatatata 5400

ttattattat atatataata ttaaggtcct caaataccta aaagtttagc aaaatctaaa 5460

taatattgtg catattcttt tattactgta ttagtccgtt ttcatgttgc tgataaagac 5520

atacccaaga ctgggcaatt tacaaaagaa agaggttcac tggactcaca gttccacgtg 5580

gctggggagg cctcacaatc acggcagctt acgggattgt tgagaaatga cacttctcaa 5640

gctggggcta aactatctct gtggtagttg ttctgattca agtattgaat tggttttttt 5700

tgttttttttt gagatggagt ttcgttcttg ttgcccaggc tggagtgcaa tggcacgatc 5760

tcagctcacc gcaacctctg cctcccgggt tcaagtgatt ctcctgcttc agcctcccaa 5820

gtagctggga ctacaggcat gagccaccac acccagctaa ttttgtattt ttagtagaga 5880

catggtttct ccatgttggt caggctggtc tcaaactccc aacctcaggt gatccacctg 5940

ccttggcctc ctaaagtgct gggattacag gcataagcca ccgtgcccgg ctggagcatt 6000

ggtatataaa agctgcctag gtaactctaa cctttggccc catacatctg aaggatacct 6060

acaatgcacc tgaaaaatgc aactgaaaca gtagttccct gggaccacac actcagaaag 6120

ggggtgtatc aggagatcta gggaccagga gggtggaaga cctaaggcag cactacagat 6180

gatggagaaa aacccactgg ggaggggcga tcctaacctt gagaatcact gagatcatgc 6240

agaagtattt gatcctacag cattaatatt gtattgtatt gtattagtat atatatatag 6300

tgtatatata tagtattagt atatatattg tattgtatta gcatatatat actaattgta 6360

ttgtattgta tttatatata tagtattgta ttagtatata tatacagtat atatgtatat 6420

atactaatac aatgtactaa tacaatacaa taccatatat atatacacta acacaataca 6480

attagtatat atatatatat atatactaat acaatacaat actatatata tactaataca 6540

atatatacat atatactcac caagacatat tagtggtctg atgtctggct gccacactca 6600

tcttctacct tcagctctgc tctaccaaat atcatttgtt tctgggatct ttgcagtcca 6660

aggaacttca tccttgatat cccacccctt actaactttt ttttttttt ttttttttga 6720

gacggagtct cgctgtgtca cccaggctgg agtgcagtgg tgtgatctcg gctcactgca 6780

agctccacct cctgggatca caccattctc ctgcctcagc ctcccaagta gctgggacta 6840

caggtgcccg ccaccacacc aggctaatgt tttaccgtgt tagcaaggat ggtctcgatc 6900

tcctgacctc atgatccatc cgccttggcc tcctaaagtg ctgggattac aggcataagc 6960

caccgcaccc ggccaccccc tactaatttt tagtaacgtc caaggattaa aggaaatttg 7020

ccttacctat ttaacaggaa tcaacagggt taatctcact ccctttctaa aaataattta 7080

taaacattgc agacaatctc atctatccct gtctaaactg tgtggaatta ctgccattta 7140

atgtaatcag tctactcatt tagtttgcct aaggaatttt tgaaaaaaca gttaaatgaa 7200

tgacttaatg gaataaccag gaagttgaag tctccaatag taagaatgaa ctcttgctct 7260

ctggataatc aaatgggtcc ttcctccttc aggtagatca tgccatttcc tcacttacac 7320

tgaacaggta aacaacataa ttactgactt caacttctag ttaattcctt cttttatcac 7380

tgagtatcct ttggctggga gttttgttgg ctatgctgcc atttttcta gttatcacag 7440

tcctataaca taccaatcct tcaatataac tcatctttaa attgtggttt taccttctca 7500

agaagttatt aattatgcca gtgctaaatc ttctaaaatg attgttgact tgttgattag 7560

cccccatgca attcccctct cccgtccctc agcacgtaag gaatggccct ttgcttactt 7620

ccacagatcc ttaaatctac cagttagaag ctaatagcct acctctctac caggaaggaa 7680

ctgtgggctg gaacataata catgttgact tataatttct tagaaaattg tgtgagaaac 7740

atcaaactcc tgattccagg atatgccaaa gacacatcat taaaaagcaa aacaaaacaa 7800

aacaaacctc atttgacgtt gctagtagtg gcatatttca tcaagatcag ctcaaataaa 7860

tagaagtgag attttcacac aaattagact gtagtgcttt ttttttaac ttatctttac 7920

catatgattt ttaacggtaa aaaaaatcgt ttgagatatt agatgtataa tatttatcat 7980

ccaattactt cattagttca atctttttc aatggcgctc ctgcatctga gaataaggtc 8040

agaaaatttc atgttctgat ttcatgctga ttttcagaag aaaaatgtta gttttgtata 8100

gaataaccca tcctaagaaa tacatttctt attatatttc ttatcttata tttcttagga 8160

caatgagcta ttcaaagggt gatgataacc agcaccatca gtcagcatta tctaagaata 8220

agaatctgtg tttctacata cagacctcct aaaaaggaac ctacacttaa caggattccc 8280

caggcaattt ggatgcacat taaagcttga gcaacactgc attagaaagt tagttttcca 8340

tcacaaaaac agtaacaaaa ggaatataaa gtaagttact ttaataatat aagaagaggg 8400

gcaggccggg cgcagtggct cacgcctgta atcccagcac tttgggaggc tgaggcgggt 8460

ggatcacctg aggtc 8475