SEQUENCE LISTING

<110> GRITSTONE ONCOLOGY, INC.

<120> MODIFIED ADENOVIRUSES

<130> GSO-033(generic)

<140>
<141>

<150> PCT/US2020/035591
<151> 2020-06-01

<150> 62/854,865
<151> 2019-05-30

<160> 210

<170> PatentIn version 3.5

<210> 1
<211> 36519
<212> DNA
<213> Artificial Sequence

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

<400> 1
ccatcwtcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagatga ggcacctgag agacctgccc 600

gatgagaaaa tcatcatcgc ttccgggaac gagattctgg aactggtggt aaatgccatg 660

atgggcgacg accctccgga gccccccacc ccatttgaga caccttcgct gcacgatttg 720

tatgatctgg aggtggatgt gcccgaggac gatcccaatg aggaggcggt aaatgatttt 780

tttagcgatg ccgcgctgct agctgccgag gaggcttcga gctctagctc agacagcgac 840

tcttcactgc atacccctag acccggcaga ggtgagaaaa agatccccga gcttaaaggg 900

gaagagatgg acttgcgctg ctatgaggaa tgcttgcccc cgagcgatga tgaggacgag 960

caggcgatcc agaacgcagc gagccaggga gtgcaagccg ccagcgagag ctttgcgctg 1020

gactgcccgc ctctgcccgg acacggctgt aagtcttgtg aatttcatcg catgaatact 1080

ggagataaag ctgtgttgtg tgcactttgc tatatgagag cttacaacca ttgtgtttac 1140

agtaagtgtg attaagttga actttagagg gaggcagaga gcagggtgac tgggcgatga 1200

ctggtttatt tatgtatata tgttctttat ataggtcccg tctctgacgc agatgatgag 1260

acccccacta caaagtccac ttcgtcaccc ccagaaattg gcacatctcc acctgagaat 1320

attgttagac cagttcctgt tagagccact gggaggagag cagctgtgga atgtttggat 1380

gacttgctac agggtggggt tgaacctttg gacttgtgta cccggaaacg ccccaggcac 1440

taagtgccac acatgtgtgt ttacttgagg tgatgtcagt atttataggg tgtggagtgc 1500

aataaaaaat gtgttgactt taagtgcgtg gtttatgact caggggtggg gactgtgagt 1560

atataagcag gtgcagacct gtgtggttag ctcagagcgg catggagatt tggacggtct 1620

tggaagactt tcacaagact agacagctgc tagagaacgc ctcgaacgga gtctcttacc 1680

tgtggagatt ctgcttcggt ggcgacctag ctaggctagt ctacagggcc aaacaggatt 1740

atagtgaaca atttgaggtt attttgagag agtgttctgg tctttttgac gctcttaact 1800

tgggccatca gtctcacttt aaccagagga tttcgagagc ccttgatttt actactcctg 1860

gcagaaccac tgcagcagta gccttttttg cttttattct tgacaaatgg agtcaagaaa 1920

cccatttcag cagggattac cagctggatt tcttagcagt agctttgtgg agaacatgga 1980

agtgccagcg cctgaatgca atctccggct acttgccggt acagccgcta gacactctga 2040

ggatcctgaa tctccaggag agtcccaggg cacgccaacg tcgccagcag cagcagcagg 2100

aggaggatca agaagagaac ccgagagccg gcctggaccc tccggcggag gaggaggagt 2160

agctgacctg tttcctgaac tgcgccgggt gctgactagg tcttcgagtg gtcgggagag 2220

ggggattaag cgggagaggc atgatgagac taatcacaga actgaactga ctgtgggtct 2280

gatgagtcgc aagcgcccag aaacagtgtg gtggcatgag gtgcagtcga ctggcacaga 2340

tgaggtgtcg gtgatgcatg agaggttttc tctagaacaa gtcaagactt gttggttaga 2400

gcctgaggat gattgggagg tagccatcag gaattatgcc aagctggctc tgaggccaga 2460

caagaagtac aagattacta agctgataaa tatcagaaat gcctgctaca tctcagggaa 2520

tggggctgaa gtggagatct gtctccagga aagggtggct ttcagatgct gcatgatgaa 2580

tatgtacccg ggagtggtgg gcatggatgg ggttaccttt atgaacatga ggttcagggg 2640

agatgggtat aatggcacgg tctttatggc caataccaag ctgacagtcc atggctgctc 2700

cttctttggg tttaataaca cctgcatcga ggcctggggt caggtcggtg tgaggggctg 2760

cagtttttca gccaactgga tgggggtcgt gggcaggacc aagagtatgc tgtccgtgaa 2820

gaaatgcttg tttgagaggt gccacctggg ggtgatgagc gagggcgaag ccagaatccg 2880

ccactgcgcc tctaccgaga cgggctgctt tgtgctgtgc aagggcaatg ctaagatcaa 2940

gcataatatg atctgtggag cctcggacga gcgcggctac cagatgctga cctgcgccgg 3000

cgggaacagc catatgctgg ccaccgtaca tgtggcttcc catgctcgca agccctggcc 3060

cgagttcgag cacaatgtca tgaccaggtg caatatgcat ctggggtccc gccgaggcat 3120

gttcatgccc taccagtgca acctgaatta tgtgaaggtg ctgctggagc ccgatgccat 3180

gtccagagtg agcctgacgg gggtgtttga catgaatgtg gaggtgtgga agattctgag 3240

atatgatgaa tccaagacca ggtgccgagc ctgcgagtgc ggagggaagc atgccaggtt 3300

ccagcccgtg tgtgtggatg tgacggagga cctgcgaccc gatcatttgg tgttgccctg 3360

caccgggacg gagttcggtt ccagcgggga agaatctgac tagagtgagt agtgttctgg 3420

ggcgggggag gacctgcatg agggccagaa taactgaaat ctgtgctttt ctgtgtgttg 3480

cagcagcatg agcggaagcg gctcctttga gggaggggta ttcagccctt atctgacggg 3540

gcgtctcccc tcctgggcgg gagtgcgtca gaatgtgatg ggatccacgg tggacggccg 3600

gcccgtgcag cccgcgaact cttcaaccct gacctatgca accctgagct cttcgtcgtt 3660

ggacgcagct gccgccgcag ctgctgcatc tgccgccagc gccgtgcgcg gaatggccat 3720

gggcgccggc tactacggca ctctggtggc caactcgagt tccaccaata atcccgccag 3780

cctgaacgag gagaagctgt tgctgctgat ggcccagctc gaggccttga cccagcgcct 3840

gggcgagctg acccagcagg tggctcagct gcaggagcag acgcgggccg cggttgccac 3900

ggtgaaatcc aaataaaaaa tgaatcaata aataaacgga gacggttgtt gattttaaca 3960

cagagtctga atctttattt gatttttcgc gcgcggtagg ccctggacca ccggtctcga 4020

tcattgagca cccggtggat cttttccagg acccggtaga ggtgggcttg gatgttgagg 4080

tacatgggca tgagcccgtc ccgggggtgg aggtagctcc attgcagggc ctcgtgctcg 4140

ggggtggtgt tgtaaatcac ccagtcatag caggggcgca gggcatggtg ttgcacaata 4200

tctttgagga ggagactgat ggccacgggc agccctttgg tgtaggtgtt tacaaatctg 4260

ttgagctggg agggatgcat gcgggggggag atgaggtgca tcttggcctg gatcttgaga 4320

ttggcgatgt taccgcccag atcccgcctg gggttcatgt tgtgcaggac caccagcacg 4380

gtgtatccgg tgcacttggg gaatttatca tgcaacttgg aagggaaggc gtgaaagaat 4440

ttggcgacgc ctttgtgccc gcccaggttt tccatgcact catccatgat gatggcgatg 4500

ggcccgtggg cggcggcctg ggcaaagacg tttcgggggt cggacacatc atagttgtgg 4560

tcctgggtga ggtcatcata ggccatttta atgaatttgg ggcggagggt gccggactgg 4620

gggacaaagg taccctcgat cccgggggcg tagttcccct cacagatctg catctcccag 4680

gctttgagct cggaggggggg gatcatgtcc acctgcgggg cgataaagaa cacggtttcc 4740

ggggcggggg agatgagctg ggccgaaagc aagttccgga gcagctggga cttgccgcag 4800

ccggtggggc cgtagatgac cccgatgacc ggctgcaggt ggtagttgag ggagagacag 4860

ctgccgtcct cccggaggag gggggccacc tcgttcatca tctcgcgcac gtgcatgttc 4920

tcgcgcacca gttccgccag gaggcgctct ccccccaggg ataggagctc ctggagcgag 4980

gcgaagtttt tcagcggctt gagtccgtcg gccatgggca ttttggagag ggtttgttgc 5040

aagagttcca ggcggtccca gagctcggtg atgtgctcta cggcatctcg atccagcaga 5100

cctcctcgtt tcgcgggttg ggacggctgc gggagtaggg caccagacga tgggcgtcca 5160

gcgcagccag ggtccggtcc ttccagggtc gcagcgtccg cgtcagggtg gtctccgtca 5220

cggtgaaggg gtgcgcgccg ggctgggcgc ttgcgagggt gcgcttcagg ctcatccggc 5280

tggtcgaaaa ccgctcccga tcggcgccct gcgcgtcggc caggtagcaa ttgaccatga 5340

gttcgtagtt gagcgcctcg gccgcgtggc ctttggcgcg gagcttacct ttggaagtct 5400

gcccgcaggc gggacagagg agggacttga gggcgtagag cttgggggcg aggaagacgg 5460

actcgggggc gtaggcgtcc gcgccgcagt gggcgcagac ggtctcgcac tccacgagcc 5520

aggtgaggtc gggctggtcg gggtcaaaaa ccagtttccc gccgttcttt ttgatgcgtt 5580

tcttaccttt ggtctccatg agctcgtgtc cccgctgggt gacaaagagg ctgtccgtgt 5640

ccccgtagac cgactttatg ggccggtcct cgagcggtgt gccgcggtcc tcctcgtaga 5700

ggaaccccgc ccactccgag acgaaagccc gggtccaggc cagcacgaag gaggccacgt 5760

gggacgggta gcggtcgttg tccaccagcg ggtccacctt ttccagggta tgcaaacaca 5820

tgtccccctc gtccacatcc aggaaggtga ttggcttgta agtgtaggcc acgtgaccgg 5880

gggtcccggc cgggggggta taaaagggtg cgggtccctg ctcgtcctca ctgtcttccg 5940

gatcgctgtc caggagcgcc agctgttggg gtaggtattc cctctcgaag gcgggcatga 6000

cctcggcact caggttgtca gtttctagaa acgaggagga tttgatattg acggtgccgg 6060

cggagatgcc tttcaagagc ccctcgtcca tctggtcaga aaagacgatc tttttgttgt 6120

cgagcttggt ggcgaaggag ccgtagaggg cgttggagag gagcttggcg atggagcgca 6180

tggtctggtt tttttccttg tcggcgcgct ccttggcggc gatgttgagc tgcacgtact 6240

cgcgcgccac gcacttccat tcggggaaga cggtggtcag ctcgtcgggc acgattctga 6300

cctgccagcc ccgattatgc agggtgatga ggtccacact ggtggccacc tcgccgcgca 6360

ggggctcatt agtccagcag aggcgtccgc ccttgcgcga gcagaagggg ggcaggggt 6420

ccagcatgac ctcgtcgggg gggtcggcat cgatggtgaa gatgccgggc aggaggtcgg 6480

ggtcaaagta gctgatggaa gtggccagat cgtccagggc agcttgccat tcgcgcacgg 6540

ccagcgcgcg ctcgtaggga ctgaggggcg tgccccaggg catgggatgg gtaagcgcgg 6600

aggcgtacat gccgcagatg tcgtagacgt agaggggctc ctcgaggatg ccgatgtagg 6660

tggggtagca gcgccccccg cggatgctgg cgcgcacgta gtcatacagc tcgtgcgagg 6720

gggcgaggag ccccgggccc aggttggtgc gactgggctt ttcggcgcgg tagacgatct 6780

ggcggaaaat ggcatgcgag ttggaggaga tggtgggcct ttggaagatg ttgaagtggg 6840

cgtggggcag tccgaccgag tcgcggatga agtgggcgta ggagtcttgc agcttggcga 6900

cgagctcggc ggtgactagg acgtccagag cgcagtagtc gagggtctcc tggatgatgt 6960

catacttgag ctgtcccttt tgtttccaca gctcgcggtt gagaaggaac tcttcgcggt 7020

ccttccagta ctcttcgagg gggaacccgt cctgatctgc acggtaagag cctagcatgt 7080

agaactggtt gacggccttg taggcgcagc agcccttctc cacggggagg gcgtaggcct 7140

gggcggcctt gcgcagggag gtgtgcgtga gggcgaaagt gtccctgacc atgaccttga 7200

ggaactggtg cttgaagtcg atatcgtcgc agccccccctg ctcccagagc tggaagtccg 7260

tgcgcttctt gtaggcgggg ttgggcaaag cgaaagtaac atcgttgaag aggatcttgc 7320

ccgcgcgggg cataaagttg cgagtgatgc ggaaaggttg gggcacctcg gcccggttgt 7380

tgatgacctg ggcggcgagc acgatctcgt cgaagccgtt gatgttgtgg cccacgatgt 7440

agagttccac gaatcgcgga cggcccttga cgtggggcag tttcttgagc tcctcgtagg 7500

tgagctcgtc ggggtcgctg agcccgtgct gctcgagcgc ccagtcggcg agatgggggt 7560

tggcgcggag gaaggaagtc cagagatcca cggccagggc ggtttgcaga cggtcccggt 7620

actgacggaa ctgctgcccg acggccattt tttcgggggt gacgcagtag aaggtgcggg 7680

ggtccccgtg ccagcgatcc catttgagct ggagggcgag atcgagggcg agctcgacga 7740

gccggtcgtc cccggagagt ttcatgacca gcatgaaggg gacgagctgc ttgccgaagg 7800

accccatcca ggtgtaggtt tccacatcgt aggtgaggaa gagcctttcg gtgcgaggat 7860

gcgagccgat ggggaagaac tggatctcct gccaccaatt ggaggaatgg ctgttgatgt 7920

gatggaagta gaaatgccga cggcgcgccg aacactcgtg cttgtgttta tacaagcggc 7980

cacagtgctc gcaacgctgc acgggatgca cgtgctgcac gagctgtacc tgagttcctt 8040

tgacgaggaa tttcagtggg aagtggagtc gtggcgcctg catctcgtgc tgtactacgt 8100

cgtggtggtc ggcctggccc tcttctgcct cgatggtggt catgctgacg agcccgcgcg 8160

ggaggcaggt ccagacctcg gcgcgagcgg gtcggagagc gaggacgagg gcgcgcaggc 8220

cggagctgtc cagggtcctg agacgctgcg gagtcaggtc agtgggcagc ggcggcgcgc 8280

ggttgacttg caggagtttt tccagggcgc gcgggaggtc cagatggtac ttgatctcca 8340

ccgcgccatt ggtggcgacg tcgatggctt gcagggtccc gtgcccctgg ggtgtgacca 8400

ccgtcccccg tttcttcttg ggcggctggg gcgacggggg cggtgcctct tccatggtta 8460

gaagcggcgg cgaggacgcg cgccgggcgg caggggcggc tcggggcccg gaggcagggg 8520

cggcaggggc acgtcggcgc cgcgcgcggg taggttctgg tactgcgccc ggagaagact 8580

ggcgtgagcg acgacgcgac ggttgacgtc ctggatctga cgcctctggg tgaaggccac 8640

gggacccgtg agtttgaacc tgaaagagag ttcgacagaa tcaatctcgg tatcgttgac 8700

ggcggcctgc cgcaggatct cttgcacgtc gcccgagttg tcctggtagg cgatctcggt 8760

catgaactgc tcgatctcct cctcttgaag gtctccgcgg ccggcgcgct ccacggtggc 8820

cgcgaggtcg ttggagatgc ggcccatgag ctgcgagaag gcgttcatgc ccgcctcgtt 8880

ccagacgcgg ctgtagacca cgacgccctc gggatcgcgg gcgcgcatga ccacctgggc 8940

gaggttgagc tccacgtggc gcgtgaagac cgcgtagttg cagaggcgct ggtagaggta 9000

gttgagcgtg gtggcgatgt gctcggtgac gaagaaatac atgatccagc ggcggagcgg 9060

catctcgctg acgtcgccca gcgcctccaa acgttccatg gcctcgtaaa agtccacggc 9120

gaagttgaaa aactgggagt tgcgcgccga gacggtcaac tcctcctcca gaagacggat 9180

gagctcggcg atggtggcgc gcacctcgcg ctcgaaggcc cccgggagtt cctccacttc 9240

ctcttcttcc tcctccacta acatctcttc tacttcctcc tcaggcggca gtggtggcgg 9300

gggaggggcc ctgcgtcgcc ggcggcgcac gggcagacgg tcgatgaagc gctcgatggt 9360

ctcgccgcgc cggcgtcgca tggtctcggt gacggcgcgc ccgtcctcgc ggggccgcag 9420

cgtgaagacg ccgccgcgca tctccaggtg gccgggggggg tccccgttgg gcagggagag 9480

ggcgctgacg atgcatctta tcaattgccc cgtagggact ccgcgcaagg acctgagcgt 9540

ctcgagatcc acgggatctg aaaaccgctg aacgaaggct tcgagccagt cgcagtcgca 9600

aggtaggctg agcacggttt cttctggcgg gtcatgttgg ttgggagcgg ggcgggcgat 9660

gctgctggtg atgaagttga aataggcggt tctgagacgg cggatggtgg cgaggagcac 9720

caggtctttg ggcccggctt gctggatgcg cagacggtcg gccatgcccc aggcgtggtc 9780

ctgacacctg gccaggtcct tgtagtagtc ctgcatgagc cgctccacgg gcacctcctc 9840

ctcgcccgcg cggccgtgca tgcgcgtgag cccgaagccg cgctggggct ggacgagcgc 9900

caggtcggcg acgacgcgct cggcgaggat ggcttgctgg atctgggtga gggtggtctg 9960

gaagtcatca aagtcgacga agcggtggta ggctccggtg ttgatggtgt aggagcagtt 10020

ggccatgacg gaccagttga cggtctggtg gcccggacgc acgagctcgt ggtacttgag 10080

gcgcgagtag gcgcgcgtgt cgaagatgta gtcgttgcag gtgcgcacca ggtactggta 10140

gccgatgagg aagtgcggcg gcggctggcg gtagagcggc catcgctcgg tggcgggggc 10200

gccgggcgcg aggtcctcga gcatggtgcg gtggtagccg tagatgtacc tggacatcca 10260

ggtgatgccg gcggcggtgg tggaggcgcg cgggaactcg cggacgcggt tccagatgtt 10320

gcgcagcggc aggaagtagt tcatggtggg cacggtctgg cccgtgaggc gcgcgcagtc 10380

gtggatgctc tatacgggca aaaacgaaag cggtcagcgg ctcgactccg tggcctggag 10440

gctaagcgaa cgggttgggc tgcgcgtgta ccccggttcg aatctcgaat caggctggag 10500

ccgcagctaa cgtggtattg gcactcccgt ctcgacccaa gcctgcacca accctccagg 10560

atacggaggc gggtcgtttt gcaacttttt tttggaggcc ggatgagact agtaagcgcg 10620

gaaagcggcc gaccgcgatg gctcgctgcc gtagtctgga gaagaatcgc cagggttgcg 10680

ttgcggtgtg ccccggttcg aggccggccg gattccgcgg ctaacgaggg cgtggctgcc 10740

ccgtcgtttc caagacccca tagccagccg acttctccag ttacggagcg agcccctctt 10800

ttgttttgtt tgtttttgcc agatgcatcc cgtactgcgg cagatgcgcc cccaccaccc 10860

tccaccgcaa caacagcccc ctccacagcc ggcgcttctg cccccgcccc agcagcaact 10920

tccagccacg accgccgcgg ccgccgtgag cggggctgga cagagttatg atcaccagct 10980

ggccttggaa gagggcgagg ggctggcgcg cctgggggcg tcgtcgccgg agcggcaccc 11040

gcgcgtgcag atgaaaaggg acgctcgcga ggcctacgtg cccaagcaga acctgttcag 11100

agacaggagc ggcgaggagc ccgaggagat gcgcgcggcc cggttccacg cggggcggga 11160

gctgcggcgc ggcctggacc gaaagagggt gctgagggac gaggatttcg aggcggacga 11220

gctgacgggg atcagccccg cgcgcgcgca cgtggccgcg gccaacctgg tcacggcgta 11280

cgagcagacc gtgaaggagg agagcaactt ccaaaaatcc ttcaacaacc acgtgcgcac 11340

cctgatcgcg cgcgaggagg tgaccctggg cctgatgcac ctgtgggacc tgctggaggc 11400

catcgtgcag aaccccacca gcaagccgct gacggcgcag ctgttcctgg tggtgcagca 11460

tagtcgggac aacgaagcgt tcagggaggc gctgctgaat atcaccgagc ccgagggccg 11520

ctggctcctg gacctggtga acattctgca gagcatcgtg gtgcaggagc gcgggctgcc 11580

gctgtccgag aagctggcgg ccatcaactt ctcggtgctg agtttgggca agtactacgc 11640

taggaagatc tacaagaccc cgtacgtgcc catagacaag gaggtgaaga tcgacgggtt 11700

ttacatgcgc atgaccctga aagtgctgac cctgagcgac gatctggggg tgtaccgcaa 11760

cgacaggatg caccgtgcgg tgagcgccag caggcggcgc gagctgagcg accaggagct 11820

gatgcatagt ctgcagcggg ccctgaccgg ggccgggacc gaggggggaga gctactttga 11880

catgggcgcg gacctgcact ggcagcccag ccgccgggcc ttggaggcgg cggcaggacc 11940

ctacgtagaa gaggtggacg atgaggtgga cgaggagggc gagtacctgg aagactgatg 12000

gcgcgaccgt atttttgcta gatgcaacaa caacagccac ctcctgatcc cgcgatgcgg 12060

gcggcgctgc agagccagcc gtccggcatt aactcctcgg acgattggac ccaggccatg 12120

caacgcatca tggcgctgac gacccgcaac cccgaagcct ttagacagca gccccaggcc 12180

aaccggctct cggccatcct ggaggccgtg gtgccctcgc gctccaaccc cacgcacgag 12240

aaggtcctgg ccatcgtgaa cgcgctggtg gagaacaagg ccatccgcgg cgacgaggcc 12300

ggcctggtgt acaacgcgct gctggagcgc gtggcccgct acaacagcac caacgtgcag 12360

accaacctgg accgcatggt gaccgacgtg cgcgaggccg tggcccagcg cgagcggttc 12420

caccgcgagt ccaacctggg atccatggtg gcgctgaacg ccttcctcag cacccagccc 12480

gccaacgtgc cccggggcca ggaggactac accaacttca tcagcgccct gcgcctgatg 12540

gtgaccgagg tgccccagag cgaggtgtac cagtccgggc cggactactt cttccagacc 12600

agtcgccagg gcttgcagac cgtgaacctg agccaggctt tcaagaactt gcagggcctg 12660

tggggcgtgc aggccccggt cggggaccgc gcgacggtgt cgagcctgct gacgccgaac 12720

tcgcgcctgc tgctgctgct ggtggccccc ttcacggaca gcggcagcat caaccgcaac 12780

tcgtacctgg gctacctgat taacctgtac cgcgaggcca tcggccaggc gcacgtggac 12840

gagcagacct accaggagat cacccacgtg agccgcgccc tgggccagga cgacccgggc 12900

aacctggaag ccaccctgaa ctttttgctg accaaccggt cgcagaagat cccgccccag 12960

tacgcgctca gcaccgagga ggagcgcatc ctgcgttacg tgcagcagag cgtgggcctg 13020

ttcctgatgc aggaggggGC cacccccagc gccgcgctcg acatgaccgc gcgcaacatg 13080

gagcccagca tgtacgccag caaccgcccg ttcatcaata aactgatgga ctacttgcat 13140

cgggcggccg ccatgaactc tgactatttc accaacgcca tcctgaatcc ccactggctc 13200

ccgccgccgg ggttctacac gggcgagtac gacatgcccg accccaatga cgggttcctg 13260

tgggacgatg tggacagcag cgtgttctcc ccccgaccgg gtgctaacga gcgccccttg 13320

tggaagaagg aaggcagcga ccgacgcccg tcctcggcgc tgtccggccg cgagggtgct 13380

gccgcggcgg tgcccgaggc cgccagtcct ttcccgagct tgcccttctc gctgaacagt 13440

atccgcagca gcgagctggg caggatcacg cgcccgcgct tgctgggcga agaggagtac 13500

ttgaatgact cgctgttgag acccgagcgg gagaagaact tccccaataa cgggatagaa 13560

agcctggtgg acaagatgag ccgctggaag acgtatgcgc aggagcacag ggacgatccc 13620

cgggcgtcgc agggggccac gagccggggc agcgccgccc gtaaacgccg gtggcacgac 13680

aggcagcggg gacagatgtg ggacgatgag gactccgccg acgacagcag cgtgttggac 13740

ttgggtggga gtggtaaccc gttcgctcac ctgcgccccc gtatcgggcg catgatgtaa 13800

gagaaaccga aaataaatga tactcaccaa ggccatggcg accagcgtgc gttcgtttct 13860

tctctgttgt tgttgtatct agtatgatga ggcgtgcgta cccggagggt cctcctccct 13920

cgtacgagag cgtgatgcag caggcgatgg cggcggcggc gatgcagccc ccgctggagg 13980

ctccttacgt gcccccgcgg tacctggcgc ctacggaggg gcggaacagc attcgttact 14040

cggagctggc acccttgtac gataccaccc ggttgtacct ggtggacaac aagtcggcgg 14100

acatcgcctc gctgaactac cagaacgacc acagcaactt cctgaccacc gtggtgcaga 14160

acaatgactt cacccccacg gaggccagca cccagaccat caactttgac gagcgctcgc 14220

ggtggggcgg ccagctgaaa accatcatgc acaccaacat gcccaacgtg aacgagttca 14280

tgtacagcaa caagttcaag gcgcgggtga tggtctcccg caagaccccc aatggggtga 14340

cagtgacaga ggattatgat ggtagtcagg atgagctgaa gtatgaatgg gtggaatttg 14400

agctgcccga aggcaacttc tcggtgacca tgaccatcga cctgatgaac aacgccatca 14460

tcgacaatta cttggcggtg gggcggcaga acggggtgct ggagagcgac atcggcgtga 14520

agttcgacac taggaacttc aggctgggct gggaccccgt gaccgagctg gtcatgcccg 14580

gggtgtacac caacgaggct ttccatcccg atattgtctt gctgcccggc tgcggggtgg 14640

acttcaccga gagccgcctc agcaacctgc tgggcattcg caagaggcag cccttccagg 14700

aaggcttcca gatcatgtac gaggatctgg agggggggcaa catccccgcg ctcctggatg 14760

tcgacgccta tgagaaaagc aaggaggatg cagcagctga agcaactgca gccgtagcta 14820

ccgcctctac cgaggtcagg ggcgataatt ttgcaagcgc cgcagcagtg gcagcggccg 14880

aggcggctga aaccgaaagt aagatagtca ttcagccggt ggagaaggat agcaagaaca 14940

ggagctacaa cgtactaccg gacaagataa acaccgccta ccgcagctgg tacctagcct 15000

acaactatgg cgaccccgag aagggcgtgc gctcctggac gctgctcacc acctcggacg 15060

tcacctgcgg cgtggagcaa gtctactggt cgctgcccga catgatgcaa gacccggtca 15120

ccttccgctc cacgcgtcaa gttagcaact acccggtggt gggcgccgag ctcctgcccg 15180

tctactccaa gagcttcttc aacgagcagg ccgtctactc gcagcagctg cgcgccttca 15240

cctcgcttac gcacgtcttc aaccgcttcc ccgagaacca gatcctcgtc cgcccgcccg 15300

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15360

cgctgcgcag cagtatccgg ggagtccagc gcgtgaccgt tactgacgcc agacgccgca 15420

cctgccccta cgtctacaag gccctgggca tagtcgcgcc gcgcgtcctc tcgagccgca 15480

ccttctaaat gtccattctc atctcgccca gtaataacac cggttggggc ctgcgcgcgc 15540

ccagcaagat gtacggaggc gctcgccaac gctccacgca acaccccgtg cgcgtgcgcg 15600

ggcacttccg cgctccctgg ggcgccctca agggccgcgt gcggtcgcgc accaccgtcg 15660

acgacgtgat cgaccaggtg gtggccgacg cgcgcaacta cacccccgcc gccgcgcccg 15720

tctccaccgt ggacgccgtc atcgacagcg tggtggccga cgcgcgccgg tacgcccgcg 15780

ccaagagccg gcggcggcgc atcgcccggc ggcaccggag cacccccgcc atgcgcgcgg 15840

cgcgagcctt gctgcgcagg gccaggcgca cgggacgcag ggccatgctc agggcggcca 15900

gacgcgcggc ttcaggcgcc agcgccggca ggacccggag acgcgcggcc acggcggcgg 15960

cagcggccat cgccagcatg tcccgcccgc ggcgagggaa cgtgtactgg gtgcgcgacg 16020

ccgccaccgg tgtgcgcgtg cccgtgcgca cccgcccccc tcgcacttga agatgttcac 16080

ttcgcgatgt tgatgtgtcc cagcggcgag gaggatgtcc aagcgcaaat tcaaggaaga 16140

gatgctccag gtcatcgcgc ctgagatcta cggccctgcg gtggtgaagg aggaaagaaa 16200

gccccgcaaa atcaagcggg tcaaaaagga caaaaaggaa gaagaaagtg atgtggacgg 16260

attggtggag tttgtgcgcg agttcgcccc ccggcggcgc gtgcagtggc gcgggcggaa 16320

ggtgcaaccg gtgctgagac ccggcaccac cgtggtcttc acgcccggcg agcgctccgg 16380

caccgcttcc aagcgctcct acgacgaggt gtacggggat gatgatattc tggagcaggc 16440

ggccgagcgc ctgggcgagt ttgcttacgg caagcgcagc cgttccgcac cgaaggaaga 16500

ggcggtgtcc atcccgctgg accacggcaa ccccacgccg agcctcaagc ccgtgacctt 16560

gcagcaggtg ctgccgaccg cggcgccgcg ccgggggttc aagcgcgagg gcgaggatct 16620

gtaccccacc atgcagctga tggtgcccaa gcgccagaag ctggaagacg tgctggagac 16680

catgaaggtg gacccggacg tgcagcccga ggtcaaggtg cggcccatca agcaggtggc 16740

cccgggcctg ggcgtgcaga ccgtggacat caagattccc acggagccca tggaaacgca 16800

gaccgagccc atgatcaagc ccagcaccag caccatggag gtgcagacgg atccctggat 16860

gccatcggct cctagtcgaa gaccccggcg caagtacggc gcggccagcc tgctgatgcc 16920

caactacgcg ctgcatcctt ccatcatccc cacgccgggc taccgcggca cgcgcttcta 16980

ccgcggtcat accagcagcc gccgccgcaa gaccaccact cgccgccgcc gtcgccgcac 17040

cgccgctgca accacccctg ccgccctggt gcggagagtg taccgccgcg gccgcgcacc 17100

tctgaccctg ccgcgcgcgc gctaccaccc gagcatcgcc atttaaactt tcgcctgctt 17160

tgcagatcaa tggccctcac atgccgcctt cgcgttccca ttacgggcta ccgaggaaga 17220

aaaccgcgcc gtagaaggct ggcggggaac gggatgcgtc gccaccacca ccggcggcgg 17280

cgcgccatca gcaagcggtt gggggggaggc ttcctgcccg cgctgatccc catcatcgcc 17340

gcggcgatcg gggcgatccc cggcattgct tccgtggcgg tgcaggcctc tcagcgccac 17400

tgagacacac ttggaaacat cttgtaataa accaatggac tctgacgctc ctggtcctgt 17460

gatgtgtttt cgtagacaga tggaagacat caatttttcg tccctggctc cgcgacacgg 17520

cacgcggccg ttcatgggca cctggagcga catcggcacc agccaactga acgggggcgc 17580

cttcaattgg agcagtctct ggagcgggct taagaatttc gggtccacgc ttaaaaccta 17640

tggcagcaag gcgtggaaca gcaccacagg gcaggcgctg agggataagc tgaaagagca 17700

gaacttccag cagaaggtgg tcgatgggct cgcctcgggc atcaacgggg tggtggacct 17760

ggccaaccag gccgtgcagc ggcagatcaa cagccgcctg gacccggtgc cgcccgccgg 17820

ctccgtggag atgccgcagg tggaggagga gctgcctccc ctggacaagc ggggcgagaa 17880

gcgaccccgc cccgatgcgg aggagacgct gctgacgcac acggacgagc cgcccccgta 17940

cgaggaggcg gtgaaactgg gtctgcccac cacgcggccc atcgcgcccc tggccaccgg 18000

ggtgctgaaa cccgaaaagc ccgcgaccct ggacttgcct cctccccagc cttcccgccc 18060

ctctacagtg gctaagcccc tgccgccggt ggccgtggcc cgcgcgcgac ccgggggcac 18120

cgcccgccct catgcgaact ggcagagcac tctgaacagc atcgtgggtc tgggagtgca 18180

gagtgtgaag cgccgccgct gctattaaac ctaccgtagc gcttaacttg cttgtctgtg 18240

tgtgtatgta ttatgtcgcc gccgccgctg tccaccagaa ggaggagtga agaggcgcgt 18300

cgccgagttg caagatggcc accccatcga tgctgcccca gtgggcgtac atgcacatcg 18360

ccggacagga cgcttcggag tacctgagtc cgggtctggt gcagtttgcc cgcgccacag 18420

acacctactt cagtctgggg aacaagttta ggaaccccac ggtggcgccc acgcacgatg 18480

tgaccaccga ccgcagccag cggctgacgc tgcgcttcgt gcccgtggac cgcgaggaca 18540

acacctactc gtacaaagtg cgctacacgc tggccgtggg cgacaaccgc gtgctggaca 18600

tggccagcac ctactttgac atccgcggcg tgctggatcg gggccctagc ttcaaaccct 18660

actccggcac cgcctacaac agtctggccc ccaagggagc acccaacact tgtcagtgga 18720

catataaagc cgatggtgaa actgccacag aaaaaaccta tacatatgga aatgcacccg 18780

tgcagggcat taacatcaca aaagatggta ttcaacttgg aactgacacc gatgatcagc 18840

caatctacgc agataaaacc tatcagcctg aacctcaagt gggtgatgct gaatggcatg 18900

acatcactgg tactgatgaa aagtatggag gcagagctct taagcctgat accaaaatga 18960

agccttgtta tggttctttt gccaagccta ctaataaaga aggaggtcag gcaaatgtga 19020

aaacaggaac aggcactact aaagaatatg acatagacat ggctttcttt gacaacagaa 19080

gtgcggctgc tgctggccta gctccagaaa ttgttttgta tactgaaaat gtggatttgg 19140

aaactccaga tacccatatt gtatacaaag caggcacaga tgacagcagc tcttctatta 19200

atttgggtca gcaagccatg cccaacagac ctaactacat tggtttcaga gacaacttta 19260

tcgggctcat gtactacaac agcactggca atatgggggt gctggccggt caggcttctc 19320

agctgaatgc tgtggttgac ttgcaagaca gaaacaccga gctgtcctac cagctcttgc 19380

ttgactctct gggtgacaga acccggtatt tcagtatgtg gaatcaggcg gtggacagct 19440

atgatcctga tgtgcgcatt attgaaaatc atggtgtgga ggatgaactt cccaactatt 19500

gtttccctct ggatgctgtt ggcagaacag atacttatca gggaattaag gctaatggaa 19560

ctgatcaaac cacatggacc aaagatgaca gtgtcaatga tgctaatgag ataggcaagg 19620

gtaatccatt cgccatggaa atcaacatcc aagccaacct gtggaggaac ttcctctacg 19680

ccaacgtggc cctgtacctg cccgactctt acaagtacac gccggccaat gttaccctgc 19740

ccaccaacac caacacctac gattacatga acggccgggt ggtggcgccc tcgctggtgg 19800

actcctacat caacatcggg gcgcgctggt cgctggatcc catggacaac gtgaacccct 19860

tcaaccacca ccgcaatgcg gggctgcgct accgctccat gctcctgggc aacgggcgct 19920

acgtgccctt ccacatccag gtgccccaga aatttttcgc catcaagagc ctcctgctcc 19980

tgcccgggtc ctacacctac gagtggaact tccgcaagga cgtcaacatg atcctgcaga 20040

gctccctcgg caacgacctg cgcacggacg gggcctccat ctccttcacc agcatcaacc 20100

tctacgccac cttcttcccc atggcgcaca acacggcctc cacgctcgag gccatgctgc 20160

gcaacgacac caacgaccag tccttcaacg actacctctc ggcggccaac atgctctacc 20220

ccatcccggc caacgccacc aacgtgccca tctccatccc ctcgcgcaac tgggccgcct 20280

tccgcggctg gtccttcacg cgtctcaaga ccaaggagac gccctcgctg ggctccgggt 20340

tcgaccccta cttcgtctac tcgggctcca tcccctacct cgacggcacc ttctacctca 20400

accacacctt caagaaggtc tccatcacct tcgactcctc cgtcagctgg cccggcaacg 20460

accggctcct gacgcccaac gagttcgaaa tcaagcgcac cgtcgacggc gagggctaca 20520

acgtggccca gtgcaacatg accaaggact ggttcctggt ccagatgctg gcccactaca 20580

acatcggcta ccagggcttc tacgtgcccg agggctacaa ggaccgcatg tactccttct 20640

tccgcaactt ccagcccatg agccgccagg tggtggacga ggtcaactac aaggactacc 20700

aggccgtcac cctggcctac cagcacaaca actcgggctt cgtcggctac ctcgcgccca 20760

ccatgcgcca gggccagccc taccccgcca actaccccta cccgctcatc ggcaagagcg 20820

ccgtcaccag cgtcacccag aaaaagttcc tctgcgacag ggtcatgtgg cgcatccgct 20880

tctccagcaa cttcatgtcc atgggcgcgc tcaccgacct cggccagaac atgctctatg 20940

ccaactccgc ccacgcgcta gacatgaatt tcgaagtcga ccccatggat gagtccaccc 21000

ttctctatgt tgtcttcgaa gtcttcgacg tcgtccgagt gcaccagccc caccgcggcg 21060

tcatcgaggc cgtctacctg cgcaccccct tctcggccgg taacgccacc acctaagctc 21120

ttgcttcttg caagccatgg ccgcgggctc cggcgagcag gagctcaggg ccatcatccg 21180

cgacctgggc tgcgggccct acttcctggg caccttcgat aagcgcttcc cgggattcat 21240

ggccccgcac aagctggcct gcgccatcgt caacacggcc ggccgcgaga ccgggggcga 21300

gcactggctg gccttcgcct ggaacccgcg ctcgaacacc tgctacctct tcgacccctt 21360

cgggttctcg gacgagcgcc tcaagcagat ctaccagttc gagtacgagg gcctgctgcg 21420

ccgcagcgcc ctggccaccg aggaccgctg cgtcaccctg gaaaagtcca cccagaccgt 21480

gcagggtccg cgctcggccg cctgcgggct cttctgctgc atgttcctgc acgccttcgt 21540

gcactggccc gaccgcccca tggacaagaa ccccaccatg aacttgctga cgggggtgcc 21600

caacggcatg ctccagtcgc cccaggtgga acccaccctg cgccgcaacc aggaggcgct 21660

ctaccgcttc ctcaactccc actccgccta ctttcgctcc caccgcgcgc gcatcgagaa 21720

ggccaccgcc ttcgaccgca tgaatcaaga catgtaaacc gtgtgtgtat gttaaatgtc 21780

tttaataaac agcactttca tgttacacat gcatctgaga tgatttattt agaaatcgaa 21840

agggttctgc cgggtctcgg catggcccgc gggcagggac acgttgcgga actggtactt 21900

ggccagccac ttgaactcgg ggatcagcag tttgggcagc ggggtgtcgg ggaaggagtc 21960

ggtccacagc ttccgcgtca gttgcagggc gcccagcagg tcgggcgcgg agatcttgaa 22020

atcgcagttg ggacccgcgt tctgcgcgcg ggagttgcgg tacacggggt tgcagcactg 22080

gaacaccatc agggccgggt gcttcacgct cgccagcacc gtcgcgtcgg tgatgctctc 22140

cacgtcgagg tcctcggcgt tggccatccc gaagggggtc atcttgcagg tctgccttcc 22200

catggtgggc acgcacccgg gcttgtggtt gcaatcgcag tgcaggggga tcagcatcat 22260

ctgggcctgg tcggcgttca tccccgggta catggccttc atgaaagcct ccaattgcct 22320

gaacgcctgc tgggccttgg ctccctcggt gaagaagacc ccgcaggact tgctagagaa 22380

ctggttggtg gcgcacccgg cgtcgtgcac gcagcagcgc gcgtcgttgt tggccagctg 22440

caccacgctg cgcccccagc ggttctgggt gatcttggcc cggtcggggt tctccttcag 22500

cgcgcgctgc ccgttctcgc tcgccacatc catctcgatc atgtgctcct tctggatcat 22560

ggtggtcccg tgcaggcacc gcagcttgcc ctcggcctcg gtgcacccgt gcagccacag 22620

cgcgcacccg gtgcactccc agttcttgtg ggcgatctgg gaatgcgcgt gcacgaagcc 22680

ctgcaggaag cggcccatca tggtggtcag ggtcttgttg ctagtgaagg tcagcggaat 22740

gccgcggtgc tcctcgttga tgtacaggtg gcagatgcgg cggtacacct cgccctgctc 22800

gggcatcagc tggaagttgg ctttcaggtc ggtctccacg cggtagcggt ccatcagcat 22860

agtcatgatt tccataccct tctcccaggc cgagacgatg ggcaggctca tagggttctt 22920

caccatcatc ttagcgctag cagccgcggc caggggggtcg ctctcgtcca gggtctcaaa 22980

gctccgcttg ccgtccttct cggtgatccg caccgggggg tagctgaagc ccacggccgc 23040

cagctcctcc tcggcctgtc tttcgtcctc gctgtcctgg ctgacgtcct gcaggaccac 23100

atgcttggtc ttgcggggtt tcttcttggg cggcagcggc ggcggagatg ttggagatgg 23160

cgagggggag cgcgagttct cgctcaccac tactatctct tcctcttctt ggtccgaggc 23220

cacgcggcgg taggtatgtc tcttcggggg cagaggcgga ggcgacgggc tctcgccgcc 23280

gcgacttggc ggatggctgg cagagcccct tccgcgttcg ggggtgcgct cccggcggcg 23340

ctctgactga cttcctccgc ggccggccat tgtgttctcc tagggaggaa caacaagcat 23400

ggagactcag ccatcgccaa cctcgccatc tgcccccacc gccgacgaga agcagcagca 23460

gcagaatgaa agcttaaccg ccccgccgcc cagccccgcc acctccgacg cggccgtccc 23520

agacatgcaa gagatggagg aatccatcga gattgacctg ggctatgtga cgcccgcgga 23580

gcacgaggag gagctggcag tgcgcttttc acaagaagag atacaccaag aacagccaga 23640

gcaggaagca gagaatgagc agagtcaggc tgggctcgag catgacggcg actacctcca 23700

cctgagcggg ggggaggacg cgctcatcaa gcatctggcc cggcaggcca ccatcgtcaa 23760

ggatgcgctg ctcgaccgca ccgaggtgcc cctcagcgtg gaggagctca gccgcgccta 23820

cgagttgaac ctcttctcgc cgcgcgtgcc ccccaagcgc cagcccaatg gcacctgcga 23880

gcccaacccg cgcctcaact tctacccggt cttcgcggtg cccgaggccc tggccaccta 23940

ccacatcttt ttcaagaacc aaaagatccc cgtctcctgc cgcgccaacc gcacccgcgc 24000

cgacgccctt ttcaacctgg gtcccggcgc ccgcctacct gatatcgcct ccttggaaga 24060

ggttcccaag atcttcgagg gtctgggcag cgacgagact cgggccgcga acgctctgca 24120

aggagaagga ggagagcatg agcaccacag cgccctggtc gagttggaag gcgacaacgc 24180

gcggctggcg gtgctcaaac gcacggtcga gctgacccat ttcgcctacc cggctctgaa 24240

cctgcccccc aaagtcatga gcgcggtcat ggaccaggtg ctcatcaagc gcgcgtcgcc 24300

catctccgag gacgagggca tgcaagactc cgaggagggc aagcccgtgg tcagcgacga 24360

gcagctggcc cggtggctgg gtcctaatgc tagtccccag agtttggaag agcggcgcaa 24420

actcatgatg gccgtggtcc tggtgaccgt ggagctggag tgcctgcgcc gcttcttcgc 24480

cgacgcggag accctgcgca aggtcgagga gaacctgcac tacctcttca ggcacgggtt 24540

cgtgcgccag gcctgcaaga tctccaacgt ggagctgacc aacctggtct cctacatggg 24600

catcttgcac gagaaccgcc tggggcagaa cgtgctgcac accaccctgc gcggggaggc 24660

ccggcgcgac tacatccgcg actgcgtcta cctctacctc tgccacacct ggcagacggg 24720

catgggcgtg tggcagcagt gtctggagga gcagaacctg aaagagctct gcaagctcct 24780

gcagaagaac ctcaagggtc tgtggaccgg gttcgacgag cgcaccaccg cctcggacct 24840

ggccgacctc attttccccg agcgcctcag gctgacgctg cgcaacggcc tgcccgactt 24900

tatgagccaa agcatgttgc aaaactttcg ctctttcatc ctcgaacgct ccggaatcct 24960

gcccgccacc tgctccgcgc tgccctcgga cttcgtgccg ctgaccttcc gcgagtgccc 25020

cccgccgctg tggagccact gctacctgct gcgcctggcc aactacctgg cctaccactc 25080

ggacgtgatc gaggacgtca gcggcgaggg cctgctcgag tgccactgcc gctgcaacct 25140

ctgcacgccg caccgctccc tggcctgcaa cccccagctg ctgagcgaga cccagatcat 25200

cggcaccttc gagttgcaag ggcccagcga aggcgagggt tcagccgcca agggggtct 25260

gaaactcacc ccgggctgt ggacctcggc ctacttgcgc aagttcgtgc ccgaggacta 25320

ccatcccttc gagatcaggt tctacgagga ccaatcccat ccgcccaagg ccgagctgtc 25380

ggcctgcgtc atcacccagg gggcgatcct ggcccaattg caagccatcc agaaatcccg 25440

ccaagaattc ttgctgaaaa agggccgcgg ggtctacctc gacccccaga ccggtgagga 25500

gctcaacccc ggcttccccc aggatgcccc gaggaaacaa gaagctgaaa gtggagctgc 25560

cgcccgtgga ggatttggag gaagactggg agaacagcag tcaggcagag gaggaggaga 25620

tggaggaaga ctgggacagc actcaggcag aggaggacag cctgcaagac agtctggagg 25680

aagacgagga ggaggcagag gaggaggtgg aagaagcagc cgccgccaga ccgtcgtcct 25740

cggcgggga gaaagcaagc agcacggata ccatctccgc tccgggtcgg ggtcccgctc 25800

gaccacacag tagatgggac gagaccggac gattcccgaa ccccaccacc cagaccggta 25860

agaaggagcg gcagggatac aagtcctggc gggggcacaa aaacgccatc gtctcctgct 25920

tgcaggcctg cgggggcaac atctccttca cccggcgcta cctgctcttc caccgcgggg 25980

tgaactttcc ccgcaacatc ttgcattact accgtcacct ccacagcccc tactacttcc 26040

aagaagaggc agcagcagca gaaaaagacc agcagaaaac cagcagctag aaaatccaca 26100

gcggcggcag caggtggact gaggatcgcg gcgaacgagc cggcgcaaac ccgggagctg 26160

aggaaccgga tctttcccac cctctatgcc atcttccagc agagtcgggg gcaggagcag 26220

gaactgaaag tcaagaaccg ttctctgcgc tcgctcaccc gcagttgtct gtatcacaag 26280

agcgaagacc aacttcagcg cactctcgag gacgccgagg ctctcttcaa caagtactgc 26340

gcgctcactc ttaaagagta gcccgcgccc gcccagtcgc agaaaaaggc gggaattacg 26400

tcacctgtgc ccttcgccct agccgcctcc acccatcatc atgagcaaag agattcccac 26460

gccttacatg tggagctacc agccccagat gggcctggcc gccggtgccg cccaggacta 26520

ctccacccgc atgaattggc tcagcgccgg gcccgcgatg atctcacggg tgaatgacat 26580

ccgcgcccac cgaaaccaga tactcctaga acagtcagcg ctcaccgcca cgccccgcaa 26640

tcacctcaat ccgcgtaatt ggcccgccgc cctggtgtac caggaaattc cccagcccac 26700

gaccgtacta cttccgcgag acgcccaggc cgaagtccag ctgactaact caggtgtcca 26760

gctggcgggc ggcgccaccc tgtgtcgtca ccgccccgct cagggtataa agcggctggt 26820

gatccggggc agaggcacac agctcaacga cgaggtggtg agctcttcgc tgggtctgcg 26880

acctgacgga gtcttccaac tcgccggatc ggggagatct tccttcacgc ctcgtcaggc 26940

cgtcctgact ttggagagtt cgtcctcgca gccccgctcg ggtggcatcg gcactctcca 27000

gttcgtggag gagttcactc cctcggtcta cttcaacccc ttctccggct cccccggcca 27060

ctacccggac gagttcatcc cgaacttcga cgccatcagc gagtcggtgg acggctacga 27120

ttgaatgtcc catggtggcg cagctgacct agctcggctt cgacacctgg accactgccg 27180

ccgcttccgc tgcttcgctc gggatctcgc cgagtttgcc tactttgagc tgcccgagga 27240

gcaccctcag ggcccggccc acggagtgcg gatcgtcgtc gaaggggccc tcgactccca 27300

cctgcttcgg atcttcagcc agcgtccgat cctggtcgag cgcgagcaag gacagaccct 27360

tctgactctg tactgcatct gcaaccaccc cggcctgcat gaaagtcttt gttgtctgct 27420

gtgtactgag tataataaaa gctgagatca gcgactactc cggacttccg tgtgttcctg 27480

aatccatcaa ccagtctttg ttcttcaccg ggaacgagac cgagctccag ctccagtgta 27540

agccccacaa gaagtacctc acctggctgt tccagggctc cccgatcgcc gttgtcaacc 27600

actgcgacaa cgacggagtc ctgctgagcg gccctgccaa ccttactttt tccacccgca 27660

gaagcaagct ccagctcttc caacccttcc tccccgggac ctatcagtgc gtctcgggac 27720

cctgccatca caccttccac ctgatcccga ataccacagc gtcgctcccc gctactaaca 27780

accaaactaa cctccaccaa cgccaccgtc gcgacctttc tgaatctaat actaccaccc 27840

acaccggagg tgagctccga ggtcaaccaa cctctgggat ttactacggc ccctgggagg 27900

tggttgggtt aatagcgcta ggcctagttg cgggtgggct tttggttctc tgctacctat 27960

acctcccttg ctgttcgtac ttagtggtgc tgtgttgctg gtttaagaaa tggggaagat 28020

caccctagtg agctgcggtg cgctggtggc ggtgttgctt tcgattgtgg gactgggcgg 28080

tgcggctgta gtgaaggaga aggccgatcc ctgcttgcat ttcaatccca acaaatgcca 28140

gctgagtttt cagcccgatg gcaatcggtg cgcggtactg atcaagtgcg gatgggaatg 28200

cgagaacgtg agaatcgagt acaataacaa gactcggaac aatactctcg cgtccgtgtg 28260

gcagcccggg gaccccgagt ggtacaccgt ctctgtcccc ggtgctgacg gctccccgcg 28320

caccgtgaat aatactttca tttttgcgca catgtgcgac acggtcatgt ggatgagcaa 28380

gcagtacgat atgtggcccc ccacgaagga gaacatcgtg gtcttctcca tcgcttacag 28440

cctgtgcacg gcgctaatca ccgctatcgt gtgcctgagc attcacatgc tcatcgctat 28500

tcgccccaga aataatgccg aaaaagaaaa acagccataa cgtttttttt cacacctttt 28560

tcagaccatg gcctctgtta aatttttgct tttatttgcc agtctcattg ccgtcattca 28620

tggaatgagt aatgagaaaa ttactattta cactggcact aatcacacat tgaaaggtcc 28680

agaaaaagcc acagaagttt catggtattg ttattttaat gaatcagatg tatctactga 28740

actctgtgga aacaataaca aaaaaaatga gagcattact ctcatcaagt ttcaatgtgg 28800

atctgactta accctaatta acatcactag agactatgta ggtatgtatt atggaactac 28860

agcaggcatt tcggacatgg aattttatca agtttctgtg tctgaaccca ccacgcctag 28920

aatgaccaca accacaaaaa ctacacctgt taccactatg cagctcacta ccaataacat 28980

ttttgccatg cgtcaaatgg tcaacaatag cactcaaccc accccaccca gtgaggaaat 29040

tcccaaatcc atgattggca ttattgttgc tgtagtggtg tgcatgttga tcatcgcctt 29100

gtgcatggtg tactatgcct tctgctacag aaagcacaga ctgaacgaca agctggaaca 29160

cttactaagt gttgaatttt aatttttttag aaccatgaag atcctaggcc ttttaatttt 29220

ttctatcatt acctctgctc tatgcaattc tgacaatgag gacgttactg tcgttgtcgg 29280

atcaaattat acactgaaag gtccagcgaa gggtatgctt tcgtggtatt gctattttgg 29340

atctgacact acagaaactg aattatgcaa tcttaagaat ggcaaaattc aaaattctaa 29400

aattaacaat tatatatgca atggtactga tctgatactc ctcaatatca cgaaatcata 29460

tgctggcagt tacacctgcc ctggagatga tgctgacagt atgatttttt acaaagtaac 29520

tgttgttgat cccactactc cacctccacc caccacaact actcacacca cacacacaga 29580

tcaaaccgca gcagaggagg cagcaaagtt agccttgcag gtccaagaca gttcatttgt 29640

tggcattacc cctacacctg atcagcggtg tccggggctg ctagtcagcg gcattgtcgg 29700

tgtgctttcg ggattagcag tcataatcat ctgcatgttc atttttgctt gctgctatag 29760

aaggctttac cgacaaaaat cagacccact gctgaacctc tatgtttaat tttttccaga 29820

gtcatgaagg cagttagcgc tctagttttt tgttctttga ttggcattgt tttttgcaat 29880

cctattccta aagttagctt tattaaagat gtgaatgtta ctgaggggg caatgtgaca 29940

ctggtaggtg tagagggtgc tgaaaacacc acctggacaa aataccacct caatgggtgg 30000

aaagatattt gcaattggag tgtattagtt tatacatgtg agggagttaa tcttaccatt 30060

gtcaatgcca cctcagctca aaatggtaga attcaaggac aaagtgtcag tgtatctaat 30120

gggtatttta cccaacatac ttttatctat gacgttaaag tcataccact gcctacgcct 30180

agcccaccta gcactaccac acagacaacc cacactacac agacaaccac atacagtaca 30240

ttaaatcagc ctaccaccac tacagcagca gaggttgcca gctcgtctgg ggtccgagtg 30300

gcatttttga tgtgggcccc atctagcagt cccactgcta gtaccaatga gcagactact 30360

gaatttttgt ccactgtcga gagccacacc acagctacct ccagtgcctt ctctagcacc 30420

gccaatctct cctcgctttc ctctacacca atcagtcccg ctactactcc tagccccgct 30480

cctcttccca ctcccctgaa gcaaacagac ggcggcatgc aatggcagat caccctgctc 30540

attgtgatcg ggttggtcat cctggccgtg ttgctctact acatcttctg ccgccgcatt 30600

cccaacgcgc accgcaagcc ggtctacaag cccatcattg tcgggcagcc ggagccgctt 30660

caggtggaag ggggtctaag gaatcttctc ttctctttta cagtatggtg attgaactat 30720

gattcctaga caattcttga tcactattct tatctgcctc ctccaagtct gtgccaccct 30780

cgctctggtg gccaacgcca gtccagactg tattgggccc ttcgcctcct acgtgctctt 30840

tgccttcacc acctgcatct gctgctgtag catagtctgc ctgcttatca ccttcttcca 30900

gttcattgac tggatctttg tgcgcatcgc ctacctgcgc caccaccccc agtaccgcga 30960

ccagcgagtg gcgcggctgc tcaggctcct ctgataagca tgcgggctct gctacttctc 31020

gcgcttctgc tgttagtgct cccccgtccc gtcgaccccc ggtcccccac ccagtccccc 31080

gaggaggtcc gcaaatgcaa attccaagaa ccctggaaat tcctcaaatg ctaccgccaa 31140

aaatcagaca tgcatcccag ctggatcatg atcattggga tcgtgaacat tctggcctgc 31200

accctcatct cctttgtgat ttacccctgc tttgactttg gttggaactc gccagaggcg 31260

ctctatctcc cgcctgaacc tgacacacca ccacagcaac ctcaggcaca cgcactacca 31320

ccactacagc ctaggccaca atacatgccc atattagact atgaggccga gccacagcga 31380

cccatgctcc ccgctattag ttacttcaat ctaaccggcg gagatgactg acccactggc 31440

caacaacaac gtcaacgacc ttctcctgga catggacggc cgcgcctcgg agcagcgact 31500

cgcccaactt cgcattcgcc agcagcagga gagagccgtc aaggagctgc aggatgcggt 31560

ggccatccac cagtgcaaga gaggcatctt ctgcctggtg aaacaggcca agatctccta 31620

cgaggtcact ccaaacgacc atcgcctctc ctacgagctc ctgcagcagc gccagaagtt 31680

cacctgcctg gtcggagtca accccatcgt catcacccag cagtctggcg ataccaaggg 31740

gtgcatccac tgctcctgcg actccccga ctgcgtccac actctgatca agaccctctg 31800

cggcctccgc gacctcctcc ccatgaacta atcacccccct tatccagtga aataaagatc 31860

atattgatga tgattttaca gaaataaaaa ataatcattt gatttgaaat aaagatacaa 31920

tcatattgat gatttgagtt taacaaaaaa ataaagaatc acttacttga aatctgatac 31980

caggtctctg tccatgtttt ctgccaacac cacttcactc ccctcttccc agctctggta 32040

ctgcaggccc cggcgggctg caaacttcct ccacacgctg aaggggatgt caaattcctc 32100

ctgtccctca atcttcattt tatcttctat cagatgtcca aaaagcgcgt ccgggtggat 32160

gatgacttcg accccgtcta cccctacgat gcagacaacg caccgaccgt gcccttcatc 32220

aacccccccct tcgtctcttc agatggattc caagagaagc ccctgggggt gttgtccctg 32280

cgactggccg accccgtcac caccaagaac ggggaaatca ccctcaagct gggagagggg 32340

gtggacctcg attcctcggg aaaactcatc tccaacacgg ccaccaaggc cgccgcccct 32400

ctcagttttt ccaacaacac catttccctt aacatggatc acccctttta cactaaagat 32460

ggaaaattat ccttacaagt ttctccacca ttaaatatac tgagaacaag cattctaaac 32520

acactagctt taggttttgg atcaggttta ggactccgtg gctctgcctt ggcagtacag 32580

ttagtctctc cacttacatt tgatactgat ggaaacataa agcttacctt agacagaggt 32640

ttgcatgtta caacaggaga tgcaattgaa agcaacataa gctgggctaa aggtttaaaa 32700

tttgaagatg gagccatagc aaccaacatt ggaaatgggt tagagtttgg aagcagtagt 32760

acagaaacag gtgttgatga tgcttaccca atccaagtta aacttggatc tggccttagc 32820

tttgacagta caggagccat aatggctggt aacaaagaag acgataaact cactttgtgg 32880

acaacacctg atccatcacc aaactgtcaa atactcgcag aaaatgatgc aaaactaaca 32940

ctttgcttga ctaaatgtgg tagtcaaata ctggccactg tgtcagtctt agttgtagga 33000

agtggaaacc taaaccccat tactggcacc gtaagcagtg ctcaggtgtt tctacgtttt 33060

gatgcaaacg gtgttctttt aacagaacat tctacactaa aaaaatactg ggggtatagg 33120

cagggagata gcatagatgg cactccatat accaatgctg taggattcat gcccaattta 33180

aaagcttatc caaagtcaca aagttctact actaaaaata atatagtagg gcaagtatac 33240

atgaatggag atgtttcaaa acctatgctt ctcactataa ccctcaatgg tactgatgac 33300

agcaacagta catattcaat gtcattttca tacacctgga ctaatggaag ctatgttgga 33360

gcaacatttg gggctaactc ttataccttc tcatacatcg cccaagaatg aacactgtat 33420

cccaccctgc atgccaaccc ttcccacccc actctgtgga acaaactctg aaacacaaaa 33480

taaaataaag ttcaagtgtt ttattgattc aacagtttta caggattcga gcagttattt 33540

ttcctccacc ctcccaggac atggaataca ccaccctctc cccccgcaca gccttgaaca 33600

tctgaatgcc attggtgatg gacatgcttt tggtctccac gttccacaca gtttcagagc 33660

gagccagtct cgggtcggtc agggagatga aaccctccgg gcactcccgc atctgcacct 33720

cacagctcaa cagctgagga ttgtcctcgg tggtcgggat cacggttatc tggaagaagc 33780

agaagagcgg cggtgggaat catagtccgc gaacgggatc ggccggtggt gtcgcatcag 33840

gccccgcagc agtcgctgcc gccgccgctc cgtcaagctg ctgctcaggg ggtccgggtc 33900

cagggactcc ctcagcatga tgcccacggc cctcagcatc agtcgtctgg tgcggcgggc 33960

gcagcagcgc atgcggatct cgctcaggtc gctgcagtac gtgcaacaca gaaccaccag 34020

gttgttcaac agtccatagt tcaacacgct ccagccgaaa ctcatcgcgg gaaggatgct 34080

acccacgtgg ccgtcgtacc agatcctcag gtaaatcaag tggtgccccc tccagaacac 34140

gctgcccacg tacatgatct ccttgggcat gtggcggttc accacctccc ggtaccacat 34200

caccctctgg ttgaacatgc agccccggat gatcctgcgg aaccacaggg ccagcaccgc 34260

cccgcccgcc atgcagcgaa gagaccccgg gtcccggcaa tggcaatgga ggacccaccg 34320

ctcgtacccg tggatcatct gggagctgaa caagtctatg ttggcacagc acaggcatat 34380

gctcatgcat ctcttcagca ctctcaactc ctcgggggtc aaaaccatat cccagggcac 34440

ggggaactct tgcaggacag cgaaccccgc agaacagggc aatcctcgca cagaacttac 34500

attgtgcatg gacagggtat cgcaatcagg cagcaccggg tgatcctcca ccagagaagc 34560

gcgggtctcg gtctcctcac agcgtggtaa gggggccggc cgatacgggt gatggcggga 34620

cgcggctgat cgtgttcgcg accgtgtcat gatgcagttg ctttcggaca ttttcgtact 34680

tgctgtagca gaacctggtc cgggcgctgc acaccgatcg ccggcggcgg tctcggcgct 34740

tggaacgctc ggtgttgaaa ttgtaaaaca gccactctct cagaccgtgc agcagatcta 34800

gggcctcagg agtgatgaag atcccatcat gcctgatggc tctgatcaca tcgaccaccg 34860

tggaatgggc cagacccagc cagatgatgc aattttgttg ggtttcggtg acggcggggg 34920

agggaagaac aggaagaacc atgattaact tttaatccaa acggtctcgg agtacttcaa 34980

aatgaagatc gcggagatgg cacctctcgc ccccgctgtg ttggtggaaa ataacagcca 35040

ggtcaaaggt gatacggttc tcgagatgtt ccacggtggc ttccagcaaa gcctccacgc 35100

gcacatccag aaacaagaca atagcgaaag cgggagggtt ctctaattcc tcaatcatca 35160

tgttacactc ctgcaccatc cccagataat tttcattttt ccagccttga atgattcgaa 35220

ctagttcctg aggtaaatcc aagccagcca tgataaagag ctcgcgcaga gcgccctcca 35280

ccggcattct taagcacacc ctcataattc caagatattc tgctcctggt tcacctgcag 35340

cagattgaca agcggaatat caaaatctct gccgcgatcc ctgagctcct ccctcagcaa 35400

taactgtaag tactctttca tatcctctcc gaaattttta gccataggac caccaggaat 35460

aagattaggg caagccacag tacagataaa ccgaagtcct ccccagtgag cattgccaaa 35520

tgcaagactg ctataagcat gctggctaga cccggtgata tcttccagat aactggacag 35580

aaaatcgccc aggcaatttt taagaaaatc aacaaaagaa aaatcctcca ggtggacgtt 35640

tagagcctcg ggaacaacga tgaagtaaat gcaagcggtg cgttccagca tggttagtta 35700

gctgatctgt agaaaaaaca aaaatgaaca ttaaaccatg ctagcctggc gaacaggtgg 35760

gtaaatcgtt ctctccagca ccaggcaggc cacggggtct ccggcgcgac cctcgtaaaa 35820

attgtcgcta tgattgaaaa ccatcacaga gagacgttcc cggtggccgg cgtgaatgat 35880

tcgacaagat gaatacaccc ccggaacatt ggcgtccgcg agtgaaaaaa agcgcccgag 35940

gaagcaataa ggcactacaa tgctcagtct caagtccagc aaagcgatgc catgcggatg 36000

aagcacaaaa ttctcaggtg cgtacaaaat gtaattactc ccctcctgca caggcagcaa 36060

agcccccgat ccctccaggt acacatacaa agcctcagcg tccatagctt accgagcagc 36120

agcacacaac aggcgcaaga gtcagagaaa ggctgagctc taacctgtcc acccgctctc 36180

tgctcaatat atagcccaga tctacactga cgtaaaggcc aaagtctaaa aatacccgcc 36240

aaataatcac acacgcccag cacacgccca gaaaccggtg acacactcaa aaaaatacgc 36300

gcacttcctc aaacgcccaa aactgccgtc atttccgggt tcccacgcta cgtcatcaaa 36360

acacgacttt caaattccgt cgaccgttaa aaacgtcacc cgccccgccc ctaacggtcg 36420

cccgtctctc agccaatcag cgccccgcat ccccaaattc aaacacctca tttgcatatt 36480

aacgcgcaca aaaagtttga ggtatattat tgatgatgg 36519

<210> 2
<211> 31604
<212> DNA
<213> Artificial Sequence

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

<400> 2
ccatcttcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagtagg gataacaggg taatgacatt 600

gattattgac tagttgttaa tagtaatcaa ttacggggtc attagttcat agcccatata 660

tggagttccg cgttacataa cttacggtaa atggcccgcc tggctgaccg cccaacgacc 720

cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc 780

attgacgtca atgggtggag tatttacggt aaactgccca cttggcagta catcaagtgt 840

atcatatgcc aagtccgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt 900

atgcccagta catgacctta cgggactttc ctacttggca gtacatctac gtattagtca 960

tcgctattac catggtgatg cggttttggc agtacaccaa tgggcgtgga tagcggtttg 1020

actcacgggg atttccaagt ctccacccca ttgacgtcaa tgggagtttg ttttggcacc 1080

aaaatcaacg ggactttcca aaatgtcgta ataaccccgc cccgttgacg caaatgggcg 1140

gtaggcgtgt acggtgggag gtctatataa gcagagctcg tttagtgaac cgtcagatcg 1200

cctggaacgc catccacgct gttttgacct ccatagaaga cagcgatcgc gccaccatgg 1260

ccgggatgtt ccaggcactg tccgaaggct gcacacccta tgatattaac cagatgctga 1320

atgtcctggg agaccaccag gtctctggcc tggagcagct ggagagcatc atcaacttcg 1380

agaagctgac cgagtggaca agctccaatg tgatgcctat cctgtcccca ctgaccaagg 1440

gcatcctggg cttcgtgttt accctgacag tgccttctga gcggggcctg tcttgcatca 1500

gcgaggcaga cgcaaccaca ccagagtccg ccaatctggg cgaggagatc ctgtctcagc 1560

tgtacctgtg gccccgggtg acatatcact ccccttctta cgcctatcac cagttcgagc 1620

ggagagccaa gtacaagaga cacttcccag gctttggcca gtctctgctg ttcggctacc 1680

ccgtgtacgt gttcggcgat tgcgtgcagg gcgactggga tgccatccgg tttagatact 1740

gcgcaccacc tggatatgca ctgctgaggt gtaacgacac caattattcc gccctgctgg 1800

cagtgggcgc cctggagggc cctcgcaatc aggattggct gggcgtgcca aggcagctgg 1860

tgacacgcat gcaggccatc cagaacgcag gcctgtgcac cctggtggca atgctggagg 1920

agacaatctt ctggctgcag gcctttctga tggccctgac cgacagcggc cccaagacaa 1980

acatcatcgt ggattcccag tacgtgatgg gcatctccaa gccttctttc caggagtttg 2040

tggactggga gaacgtgagc ccagagctga attccaccga tcagccattc tggcaggcag 2100

gaatcctggc aaggaacctg gtgcctatgg tggccacagt gcagggccag aatctgaagt 2160

accagggcca gagcctggtc atcagcgcct ccatcatcgt gtttaacctg ctggagctgg 2220

agggcgacta tcgggacgat ggcaacgtgt gggtgcacac cccactgagc cccagaacac 2280

tgaacgcctg ggtgaaggcc gtggaggaga agaagggcat cccagtgcac ctggagctgg 2340

cctccatgac caatatggag ctgatgtcta gcatcgtgca ccagcaggtg aggacatacg 2400

gacccgtgtt catgtgcctg ggaggcctgc tgaccatggt ggcaggagcc gtgtggctga 2460

cagtgcgggt gctggagctg ttcagagccg cccagctggc caacgatgtg gtgctgcaga 2520

tcatggagct gtgcggagca gcctttcgcc aggtgtgcca caccacagtg ccatggccca 2580

atgcctccct gacccccaag tggaacaatg agacaacaca gcctcagatc gccaactgta 2640

gcgtgtacga cttcttcgtg tggctgcact actatagcgt gagggatacc ctgtggcccc 2700

gcgtgacata ccacatgaat aagtacgcct atcacatgct ggagaggcgc gccaagtata 2760

agagaggccc tggcccaggc gcaaagtttg tggcagcatg gaccctgaag gccgccgccg 2820

gccccggccc cggccagtat atcaaggcta acagtaagtt cattggaatc acagagctgg 2880

gacccggacc tggataatga gtttaaactc ccatttaaat gtgagggtta atgcttcgag 2940

cagacatgat aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa 3000

aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca 3060

ataaacaagt taacaacaac aattgcattc attttatgtt tcaggttcag ggggagatgt 3120

gggaggtttt ttaaagcaag taaaacctct acaaatgtgg taaaataact ataacggtcc 3180

taaggtagcg agtgagtagt gttctggggc gggggaggac ctgcatgagg gccagaataa 3240

ctgaaatctg tgcttttctg tgtgttgcag cagcatgagc ggaagcggct cctttgaggg 3300

aggggtattc agcccttatc tgacggggcg tctcccctcc tgggcgggag tgcgtcagaa 3360

tgtgatggga tccacggtgg acggccggcc cgtgcagccc gcgaactctt caaccctgac 3420

ctatgcaacc ctgagctctt cgtcgttgga cgcagctgcc gccgcagctg ctgcatctgc 3480

cgccagcgcc gtgcgcggaa tggccatggg cgccggctac tacggcactc tggtggccaa 3540

ctcgagttcc accaataatc ccgccagcct gaacgaggag aagctgttgc tgctgatggc 3600

ccagctcgag gccttgaccc agcgcctggg cgagctgacc cagcaggtgg ctcagctgca 3660

ggagcagacg cgggccgcgg ttgccacggt gaaatccaaa taaaaaatga atcaataaat 3720

aaacggagac ggttgttgat tttaacacag agtctgaatc tttatttgat ttttcgcgcg 3780

cggtaggccc tggaccaccg gtctcgatca ttgagcaccc ggtggatctt ttccaggacc 3840

cggtagaggt gggcttggat gttgaggtac atgggcatga gcccgtcccg ggggtggagg 3900

tagctccatt gcagggcctc gtgctcgggg gtggtgttgt aaatcaccca gtcatagcag 3960

gggcgcaggg catggtgttg cacaatatct ttgaggagga gactgatggc cacgggcagc 4020

cctttggtgt aggtgtttac aaatctgttg agctgggagg gatgcatgcg gggggagatg 4080

aggtgcatct tggcctggat cttgagattg gcgatgttac cgcccagatc ccgcctgggg 4140

ttcatgttgt gcaggaccac cagcacggtg tatccggtgc acttggggaa tttatcatgc 4200

aacttggaag ggaaggcgtg aaagaatttg gcgacgcctt tgtgcccgcc caggttttcc 4260

atgcactcat ccatgatgat ggcgatgggc ccgtgggcgg cggcctgggc aaagacgttt 4320

cgggggtcgg acacatcata gttgtggtcc tgggtgaggt catcataggc cattttaatg 4380

aatttggggc ggagggtgcc ggactggggg acaaaggtac cctcgatccc gggggcgtag 4440

ttcccctcac agatctgcat ctcccaggct ttgagctcgg agggggggat catgtccacc 4500

tgcggggcga taaagaacac ggtttccggg gcgggggaga tgagctgggc cgaaagcaag 4560

ttccggagca gctgggactt gccgcagccg gtggggccgt agatgacccc gatgaccggc 4620

tgcaggtggt agttgaggga gagacagctg ccgtcctccc ggaggagggg ggccacctcg 4680

ttcatcatct cgcgcacgtg catgttctcg cgcaccagtt ccgccaggag gcgctctccc 4740

cccagggata ggagctcctg gagcgaggcg aagtttttca gcggcttgag tccgtcggcc 4800

atgggcattt tggagagggt ttgttgcaag agttccaggc ggtcccagag ctcggtgatg 4860

tgctctacgg catctcgatc cagcagacct cctcgtttcg cgggttggga cggctgcggg 4920

agtagggcac cagacgatgg gcgtccagcg cagccagggt ccggtccttc cagggtcgca 4980

gcgtccgcgt cagggtggtc tccgtcacgg tgaaggggtg cgcgccgggc tgggcgcttg 5040

cgagggtgcg cttcaggctc atccggctgg tcgaaaaccg ctcccgatcg gcgccctgcg 5100

cgtcggccag gtagcaattg accatgagtt cgtagttgag cgcctcggcc gcgtggcctt 5160

tggcgcggag cttacctttg gaagtctgcc cgcaggcggg acagaggagg gacttgaggg 5220

cgtagagctt gggggcgagg aagacggact cgggggcgta ggcgtccgcg ccgcagtggg 5280

cgcagacggt ctcgcactcc acgagccagg tgaggtcggg ctggtcgggg tcaaaaacca 5340

gtttcccgcc gttctttttg atgcgtttct tacctttggt ctccatgagc tcgtgtcccc 5400

gctgggtgac aaagaggctg tccgtgtccc cgtagaccga ctttatgggc cggtcctcga 5460

gcggtgtgcc gcggtcctcc tcgtagagga accccgccca ctccgagacg aaagcccggg 5520

tccaggccag cacgaaggag gccacgtggg acgggtagcg gtcgttgtcc accagcgggt 5580

ccacctttc cagggtatgc aaacacatgt ccccctcgtc cacatccagg aaggtgattg 5640

gcttgtaagt gtaggccacg tgaccggggg tcccggccgg gggggtataa aagggtgcgg 5700

gtccctgctc gtcctcactg tcttccggat cgctgtccag gagcgccagc tgttggggta 5760

ggtattccct ctcgaaggcg ggcatgacct cggcactcag gttgtcagtt tctagaaacg 5820

aggaggattt gatattgacg gtgccggcgg agatgccttt caagagcccc tcgtccatct 5880

ggtcagaaaa gacgatcttt ttgttgtcga gcttggtggc gaaggagccg tagagggcgt 5940

tggagaggag cttggcgatg gagcgcatgg tctggttttt ttccttgtcg gcgcgctcct 6000

tggcggcgat gttgagctgc acgtactcgc gcgccacgca cttccattcg gggaagacgg 6060

tggtcagctc gtcgggcacg attctgacct gccagccccg attatgcagg gtgatgaggt 6120

ccacactggt ggccacctcg ccgcgcaggg gctcattagt ccagcagagg cgtccgccct 6180

tgcgcgagca gaaggggggc aggggtcca gcatgacctc gtcgggggg tcggcatcga 6240

tggtgaagat gccgggcagg aggtcggggt caaagtagct gatggaagtg gccagatcgt 6300

ccagggcagc ttgccattcg cgcacggcca gcgcgcgctc gtagggactg aggggcgtgc 6360

cccagggcat gggatgggta agcgcggagg cgtacatgcc gcagatgtcg tagacgtaga 6420

ggggctcctc gaggatgccg atgtaggtgg ggtagcagcg ccccccgcgg atgctggcgc 6480

gcacgtagtc atacagctcg tgcgaggggg cgaggagccc cgggcccagg ttggtgcgac 6540

tgggcttttc ggcgcggtag acgatctggc ggaaaatggc atgcgagttg gaggagatgg 6600

tgggcctttg gaagatgttg aagtgggcgt ggggcagtcc gaccgagtcg cggatgaagt 6660

gggcgtagga gtcttgcagc ttggcgacga gctcggcggt gactaggacg tccagagcgc 6720

agtagtcgag ggtctcctgg atgatgtcat acttgagctg tccctttttgt ttccacagct 6780

cgcggttgag aaggaactct tcgcggtcct tccagtactc ttcgaggggg aacccgtcct 6840

gatctgcacg gtaagagcct agcatgtaga actggttgac ggccttgtag gcgcagcagc 6900

ccttctccac ggggagggcg taggcctggg cggccttgcg cagggaggtg tgcgtgaggg 6960

cgaaagtgtc cctgaccatg accttgagga actggtgctt gaagtcgata tcgtcgcagc 7020

ccccctgctc ccagagctgg aagtccgtgc gcttcttgta ggcggggttg ggcaaagcga 7080

aagtaacatc gttgaagagg atcttgcccg cgcggggcat aaagttgcga gtgatgcgga 7140

aaggttgggg cacctcggcc cggttgttga tgacctgggc ggcgagcacg atctcgtcga 7200

agccgttgat gttgtggccc acgatgtaga gttccacgaa tcgcggacgg cccttgacgt 7260

ggggcagttt cttgagctcc tcgtaggtga gctcgtcggg gtcgctgagc ccgtgctgct 7320

cgagcgccca gtcggcgaga tgggggttgg cgcggaggaa ggaagtccag agatccacgg 7380

ccagggcggt ttgcagacgg tcccggtact gacggaactg ctgcccgacg gccatttttt 7440

cgggggtgac gcagtagaag gtgcgggggt ccccgtgcca gcgatcccat ttgagctgga 7500

gggcgagatc gagggcgagc tcgacgagcc ggtcgtcccc ggagagtttc atgaccagca 7560

tgaaggggac gagctgcttg ccgaaggacc ccatccaggt gtaggtttcc acatcgtagg 7620

tgaggaagag cctttcggtg cgaggatgcg agccgatggg gaagaactgg atctcctgcc 7680

accaattgga ggaatggctg ttgatgtgat ggaagtagaa atgccgacgg cgcgccgaac 7740

actcgtgctt gtgtttatac aagcggccac agtgctcgca acgctgcacg ggatgcacgt 7800

gctgcacgag ctgtacctga gttcctttga cgaggaattt cagtgggaag tggagtcgtg 7860

gcgcctgcat ctcgtgctgt actacgtcgt ggtggtcggc ctggccctct tctgcctcga 7920

tggtggtcat gctgacgagc ccgcgcggga ggcaggtcca gacctcggcg cgagcgggtc 7980

ggagagcgag gacgagggcg cgcaggccgg agctgtccag ggtcctgaga cgctgcggag 8040

tcaggtcagt gggcagcggc ggcgcgcggt tgacttgcag gagtttttcc agggcgcgcg 8100

ggaggtccag atggtacttg atctccaccg cgccattggt ggcgacgtcg atggcttgca 8160

gggtcccgtg cccctggggt gtgaccaccg tcccccgttt cttcttgggc ggctggggcg 8220

acgggggcgg tgcctcttcc atggttagaa gcggcggcga ggacgcgcgc cgggcggcag 8280

gggcggctcg gggcccggag gcaggggcgg caggggcacg tcggcgccgc gcgcgggtag 8340

gttctggtac tgcgcccgga gaagactggc gtgagcgacg acgcgacggt tgacgtcctg 8400

gatctgacgc ctctgggtga aggccacggg acccgtgagt ttgaacctga aagagagttc 8460

gacagaatca atctcggtat cgttgacggc ggcctgccgc aggatctctt gcacgtcgcc 8520

cgagttgtcc tggtaggcga tctcggtcat gaactgctcg atctcctcct cttgaaggtc 8580

tccgcggccg gcgcgctcca cggtggccgc gaggtcgttg gagatgcggc ccatgagctg 8640

cgagaaggcg ttcatgcccg cctcgttcca gacgcggctg tagaccacga cgccctcggg 8700

atcgcgggcg cgcatgacca cctgggcgag gttgagctcc acgtggcgcg tgaagaccgc 8760

gtagttgcag aggcgctggt agaggtagtt gagcgtggtg gcgatgtgct cggtgacgaa 8820

gaaatacatg atccagcggc ggagcggcat ctcgctgacg tcgcccagcg cctccaaacg 8880

ttccatggcc tcgtaaaagt ccacggcgaa gttgaaaaac tgggagttgc gcgccgagac 8940

ggtcaactcc tcctccagaa gacggatgag ctcggcgatg gtggcgcgca cctcgcgctc 9000

gaaggccccc gggagttcct ccacttcctc ttcttcctcc tccactaaca tctcttctac 9060

ttcctcctca ggcggcagtg gtggcggggg agggggcctg cgtcgccggc ggcgcacggg 9120

cagacggtcg atgaagcgct cgatggtctc gccgcgccgg cgtcgcatgg tctcggtgac 9180

ggcgcgcccg tcctcgcggg gccgcagcgt gaagacgccg ccgcgcatct ccaggtggcc 9240

gggggggtcc ccgttgggca gggagagggc gctgacgatg catcttatca attgccccgt 9300

agggactccg cgcaaggacc tgagcgtctc gagatccacg ggatctgaaa accgctgaac 9360

gaaggcttcg agccagtcgc agtcgcaagg taggctgagc acggtttctt ctggcgggtc 9420

atgttggttg ggagcggggc gggcgatgct gctggtgatg aagttgaaat aggcggttct 9480

gagacggcgg atggtggcga ggagcaccag gtctttgggc ccggcttgct ggatgcgcag 9540

acggtcggcc atgccccagg cgtggtcctg acacctggcc aggtccttgt agtagtcctg 9600

catgagccgc tccacgggca cctcctcctc gcccgcgcgg ccgtgcatgc gcgtgagccc 9660

gaagccgcgc tggggctgga cgagcgccag gtcggcgacg acgcgctcgg cgaggatggc 9720

ttgctggatc tgggtgaggg tggtctggaa gtcatcaaag tcgacgaagc ggtggtaggc 9780

tccggtgttg atggtgtagg agcagttggc catgacggac cagttgacgg tctggtggcc 9840

cggacgcacg agctcgtggt acttgaggcg cgagtaggcg cgcgtgtcga agatgtagtc 9900

gttgcaggtg cgcaccaggt actggtagcc gatgaggaag tgcggcggcg gctggcggta 9960

gagcggccat cgctcggtgg cgggggcgcc gggcgcgagg tcctcgagca tggtgcggtg 10020

gtagccgtag atgtacctgg acatccaggt gatgccggcg gcggtggtgg aggcgcgcgg 10080

gaactcgcgg acgcggttcc agatgttgcg cagcggcagg aagtagttca tggtgggcac 10140

ggtctggccc gtgaggcgcg cgcagtcgtg gatgctctat acgggcaaaa acgaaagcgg 10200

tcagcggctc gactccgtgg cctggaggct aagcgaacgg gttgggctgc gcgtgtaccc 10260

cggttcgaat ctcgaatcag gctggagccg cagctaacgt ggtattggca ctcccgtctc 10320

gacccaagcc tgcaccaacc ctccaggata cggaggcggg tcgttttgca actttttttt 10380

ggaggccgga tgagactagt aagcgcggaa agcggccgac cgcgatggct cgctgccgta 10440

gtctggagaa gaatcgccag ggttgcgttg cggtgtgccc cggttcgagg ccggccggat 10500

tccgcggcta acgagggcgt ggctgccccg tcgtttccaa gaccccatag ccagccgact 10560

tctccagtta cggagcgagc ccctcttttg ttttgtttgt ttttgccaga tgcatcccgt 10620

actgcggcag atgcgccccc accaccctcc accgcaacaa cagccccctc cacagccggc 10680

gcttctgccc ccgccccagc agcaacttcc agccacgacc gccgcggccg ccgtgagcgg 10740

ggctggacag agttatgatc accagctggc cttggaagag ggcgaggggc tggcgcgcct 10800

gggggcgtcg tcgccggagc ggcacccgcg cgtgcagatg aaaagggacg ctcgcgaggc 10860

ctacgtgccc aagcagaacc tgttcagaga caggagcggc gaggagcccg aggagatgcg 10920

cgcggcccgg ttccacgcgg ggcgggagct gcggcgcggc ctggaccgaa agagggtgct 10980

gagggacgag gatttcgagg cggacgagct gacggggatc agccccgcgc gcgcgcacgt 11040

ggccgcggcc aacctggtca cggcgtacga gcagaccgtg aaggaggaga gcaacttcca 11100

aaaatccttc aacaaccacg tgcgcaccct gatcgcgcgc gaggaggtga ccctgggcct 11160

gatgcacctg tgggacctgc tggaggccat cgtgcagaac cccaccagca agccgctgac 11220

ggcgcagctg ttcctggtgg tgcagcatag tcgggacaac gaagcgttca gggaggcgct 11280

gctgaatatc accgagcccg agggccgctg gctcctggac ctggtgaaca ttctgcagag 11340

catcgtggtg caggagcgcg ggctgccgct gtccgagaag ctggcggcca tcaacttctc 11400

ggtgctgagt ttgggcaagt actacgctag gaagatctac aagaccccgt acgtgcccat 11460

agacaaggag gtgaagatcg acgggtttta catgcgcatg accctgaaag tgctgaccct 11520

gagcgacgat ctgggggtgt accgcaacga caggatgcac cgtgcggtga gcgccagcag 11580

gcggcgcgag ctgagcgacc aggagctgat gcatagtctg cagcgggccc tgaccggggc 11640

cgggaccgag ggggagagct actttgacat gggcgcggac ctgcactggc agcccagccg 11700

ccgggccttg gaggcggcgg caggacccta cgtagaagag gtggacgatg aggtggacga 11760

ggagggcgag tacctggaag actgatggcg cgaccgtatt tttgctagat gcaacaacaa 11820

cagccacctc ctgatcccgc gatgcgggcg gcgctgcaga gccagccgtc cggcattaac 11880

tcctcggacg attggaccca ggccatgcaa cgcatcatgg cgctgacgac ccgcaacccc 11940

gaagccttta gacagcagcc ccaggccaac cggctctcgg ccatcctgga ggccgtggtg 12000

ccctcgcgct ccaaccccac gcacgagaag gtcctggcca tcgtgaacgc gctggtggag 12060

aacaaggcca tccgcggcga cgaggccggc ctggtgtaca acgcgctgct ggagcgcgtg 12120

gcccgctaca acagcaccaa cgtgcagacc aacctggacc gcatggtgac cgacgtgcgc 12180

gaggccgtgg cccagcgcga gcggttccac cgcgagtcca acctgggatc catggtggcg 12240

ctgaacgcct tcctcagcac ccagcccgcc aacgtgcccc ggggccagga ggactacacc 12300

aacttcatca gcgccctgcg cctgatggtg accgaggtgc cccagagcga ggtgtaccag 12360

tccgggccgg actacttctt ccagaccagt cgccagggct tgcagaccgt gaacctgagc 12420

caggctttca agaacttgca gggcctgtgg ggcgtgcagg ccccggtcgg ggaccgcgcg 12480

acggtgtcga gcctgctgac gccgaactcg cgcctgctgc tgctgctggt ggccccttc 12540

acggacagcg gcagcatcaa ccgcaactcg tacctgggct acctgattaa cctgtaccgc 12600

gaggccatcg gccaggcgca cgtggacgag cagacctacc aggagatcac ccacgtgagc 12660

cgcgccctgg gccaggacga cccgggcaac ctggaagcca ccctgaactt tttgctgacc 12720

aaccggtcgc agaagatccc gccccagtac gcgctcagca ccgaggagga gcgcatcctg 12780

cgttacgtgc agcagagcgt gggcctgttc ctgatgcagg agggggccac ccccagcgcc 12840

gcgctcgaca tgaccgcgcg caacatggag cccagcatgt acgccagcaa ccgcccgttc 12900

atcaataaac tgatggacta cttgcatcgg gcggccgcca tgaactctga ctatttcacc 12960

aacgccatcc tgaatcccca ctggctcccg ccgccggggt tctacacggg cgagtacgac 13020

atgcccgacc ccaatgacgg gttcctgtgg gacgatgtgg acagcagcgt gttctccccc 13080

cgaccgggtg ctaacgagcg ccccttgtgg aagaaggaag gcagcgaccg acgcccgtcc 13140

tcggcgctgt ccggccgcga gggtgctgcc gcggcggtgc ccgaggccgc cagtcctttc 13200

ccgagcttgc ccttctcgct gaacagtatc cgcagcagcg agctgggcag gatcacgcgc 13260

ccgcgcttgc tgggcgaaga ggagtacttg aatgactcgc tgttgagacc cgagcgggag 13320

aagaacttcc ccaataacgg gatagaaagc ctggtggaca agatgagccg ctggaagacg 13380

tatgcgcagg agcacaggga cgatccccgg gcgtcgcagg gggccacgag ccggggcagc 13440

gccgcccgta aacgccggtg gcacgacagg cagcggggac agatgtggga cgatgaggac 13500

tccgccgacg acagcagcgt gttggacttg ggtgggagtg gtaacccgtt cgctcacctg 13560

cgcccccgta tcgggcgcat gatgtaagag aaaccgaaaa taaatgatac tcaccaaggc 13620

catggcgacc agcgtgcgtt cgtttcttct ctgttgttgt tgtatctagt atgatgaggc 13680

gtgcgtaccc ggagggtcct cctccctcgt acgagagcgt gatgcagcag gcgatggcgg 13740

cggcggcgat gcagcccccg ctggaggctc cttacgtgcc cccgcggtac ctggcgccta 13800

cggaggggcg gaacagcatt cgttactcgg agctggcacc cttgtacgat accacccggt 13860

tgtacctggt ggacaacaag tcggcggaca tcgcctcgct gaactaccag aacgaccaca 13920

gcaacttcct gaccaccgtg gtgcagaaca atgacttcac ccccacggag gccagcaccc 13980

agaccatcaa ctttgacgag cgctcgcggt ggggcggcca gctgaaaacc atcatgcaca 14040

ccaacatgcc caacgtgaac gagttcatgt acagcaacaa gttcaaggcg cgggtgatgg 14100

tctcccgcaa gacccccaat ggggtgacag tgacagagga ttatgatggt agtcaggatg 14160

agctgaagta tgaatgggtg gaatttgagc tgcccgaagg caacttctcg gtgaccatga 14220

ccatcgacct gatgaacaac gccatcatcg acaattactt ggcggtgggg cggcagaacg 14280

gggtgctgga gagcgacatc ggcgtgaagt tcgacactag gaacttcagg ctgggctggg 14340

accccgtgac cgagctggtc atgcccgggg tgtacaccaa cgaggctttc catcccgata 14400

ttgtcttgct gcccggctgc ggggtggact tcaccgagag ccgcctcagc aacctgctgg 14460

gcattcgcaa gaggcagccc ttccaggaag gcttccagat catgtacgag gatctggagg 14520

ggggcaacat ccccgcgctc ctggatgtcg acgcctatga gaaaagcaag gaggatgcag 14580

cagctgaagc aactgcagcc gtagctaccg cctctaccga ggtcaggggc gataattttg 14640

caagcgccgc agcagtggca gcggccgagg cggctgaaac cgaaagtaag atagtcattc 14700

agccggtgga gaaggatagc aagaacagga gctacaacgt actaccggac aagataaaca 14760

ccgcctaccg cagctggtac ctagcctaca actatggcga ccccgagaag ggcgtgcgct 14820

cctggacgct gctcaccacc tcggacgtca cctgcggcgt ggagcaagtc tactggtcgc 14880

tgcccgacat gatgcaagac ccggtcacct tccgctccac gcgtcaagtt agcaactacc 14940

cggtggtggg cgccgagctc ctgcccgtct actccaagag cttcttcaac gagcaggccg 15000

tctactcgca gcagctgcgc gccttcacct cgcttacgca cgtcttcaac cgcttccccg 15060

agaaccagat cctcgtccgc ccgcccgcgc ccaccattac caccgtcagt gaaaacgttc 15120

ctgctctcac agatcacggg accctgccgc tgcgcagcag tatccgggga gtccagcgcg 15180

tgaccgttac tgacgccaga cgccgcacct gcccctacgt ctacaaggcc ctgggcatag 15240

tcgcgccgcg cgtcctctcg agccgcacct tctaaatgtc cattctcatc tcgcccagta 15300

ataacaccgg ttggggcctg cgcgcgccca gcaagatgta cggaggcgct cgccaacgct 15360

ccacgcaaca ccccgtgcgc gtgcgcgggc acttccgcgc tccctggggc gccctcaagg 15420

gccgcgtgcg gtcgcgcacc accgtcgacg acgtgatcga ccaggtggtg gccgacgcgc 15480

gcaactacac ccccgccgcc gcgcccgtct ccaccgtgga cgccgtcatc gacagcgtgg 15540

tggccgacgc gcgccggtac gcccgcgcca agagccggcg gcggcgcatc gcccggcggc 15600

accggagcac ccccgccatg cgcgcggcgc gagccttgct gcgcagggcc aggcgcacgg 15660

gacgcagggc catgctcagg gcggccagac gcgcggcttc aggcgccagc gccggcagga 15720

cccggagacg cgcggccacg gcggcggcag cggccatcgc cagcatgtcc cgcccgcggc 15780

gagggaacgt gtactgggtg cgcgacgccg ccaccggtgt gcgcgtgccc gtgcgcaccc 15840

gcccccctcg cacttgaaga tgttcacttc gcgatgttga tgtgtcccag cggcgaggag 15900

gatgtccaag cgcaaattca aggaagagat gctccaggtc atcgcgcctg agatctacgg 15960

ccctgcggtg gtgaaggagg aaagaaagcc ccgcaaaatc aagcgggtca aaaaggacaa 16020

aaaggaagaa gaaagtgatg tggacggatt ggtggagttt gtgcgcgagt tcgccccccg 16080

gcggcgcgtg cagtggcgcg ggcggaaggt gcaaccggtg ctgagacccg gcaccaccgt 16140

ggtcttcacg cccggcgagc gctccggcac cgcttccaag cgctcctacg acgaggtgta 16200

cggggatgat gatattctgg agcaggcggc cgagcgcctg ggcgagtttg cttacggcaa 16260

gcgcagccgt tccgcaccga aggaagaggc ggtgtccatc ccgctggacc acggcaaccc 16320

cacgccgagc ctcaagcccg tgaccttgca gcaggtgctg ccgaccgcgg cgccgcgccg 16380

ggggttcaag cgcgagggcg aggatctgta ccccaccatg cagctgatgg tgcccaagcg 16440

ccagaagctg gaagacgtgc tggagaccat gaaggtggac ccggacgtgc agcccgaggt 16500

caaggtgcgg cccatcaagc aggtggcccc gggcctgggc gtgcagaccg tggacatcaa 16560

gattcccacg gagcccatgg aaacgcagac cgagcccatg atcaagccca gcaccagcac 16620

catggaggtg cagacggatc cctggatgcc atcggctcct agtcgaagac cccggcgcaa 16680

gtacggcgcg gccagcctgc tgatgcccaa ctacgcgctg catccttcca tcatccccac 16740

gccgggctac cgcggcacgc gcttctaccg cggtcatacc agcagccgcc gccgcaagac 16800

caccactcgc cgccgccgtc gccgcaccgc cgctgcaacc acccctgccg ccctggtgcg 16860

gagagtgtac cgccgcggcc gcgcacctct gaccctgccg cgcgcgcgct accacccgag 16920

catcgccatt taaactttcg cctgctttgc agatcaatgg ccctcacatg ccgccttcgc 16980

gttcccatta cgggctaccg aggaagaaaa ccgcgccgta gaaggctggc ggggaacggg 17040

atgcgtcgcc accaccaccg gcggcggcgc gccatcagca agcggttggg gggaggcttc 17100

ctgcccgcgc tgatccccat catcgccgcg gcgatcgggg cgatccccgg cattgcttcc 17160

gtggcggtgc aggcctctca gcgccactga gacacacttg gaaacatctt gtaataaacc 17220

aatggactct gacgctcctg gtcctgtgat gtgttttcgt agacagatgg aagacatcaa 17280

tttttcgtcc ctggctccgc gacacggcac gcggccgttc atgggcacct ggagcgacat 17340

cggcaccagc caactgaacg ggggcgcctt caattggagc agtctctgga gcgggcttaa 17400

gaatttcggg tccacgctta aaacctatgg cagcaaggcg tggaacagca ccacagggca 17460

ggcgctgagg gataagctga aagagcagaa cttccagcag aaggtggtcg atgggctcgc 17520

ctcgggcatc aacggggtgg tggacctggc caaccaggcc gtgcagcggc agatcaacag 17580

ccgcctggac ccggtgccgc ccgccggctc cgtggagatg ccgcaggtgg aggaggagct 17640

gcctcccctg gacaagcggg gcgagaagcg accccgcccc gatgcggagg agacgctgct 17700

gacgcacacg gacgagccgc ccccgtacga ggaggcggtg aaactgggtc tgcccaccac 17760

gcggcccatc gcgcccctgg ccaccggggt gctgaaaccc gaaaagcccg cgaccctgga 17820

cttgcctcct ccccagcctt cccgcccctc tacagtggct aagcccctgc cgccggtggc 17880

cgtggcccgc gcgcgacccg ggggcaccgc ccgccctcat gcgaactggc agagcactct 17940

gaacagcatc gtgggtctgg gagtgcagag tgtgaagcgc cgccgctgct attaaaccta 18000

ccgtagcgct taacttgctt gtctgtgtgt gtatgtatta tgtcgccgcc gccgctgtcc 18060

accagaagga ggagtgaaga ggcgcgtcgc cgagttgcaa gatggccacc ccatcgatgc 18120

tgccccagtg ggcgtacatg cacatcgccg gacaggacgc ttcggagtac ctgagtccgg 18180

gtctggtgca gtttgcccgc gccacagaca cctacttcag tctggggaac aagtttagga 18240

accccacggt ggcgcccacg cacgatgtga ccaccgaccg cagccagcgg ctgacgctgc 18300

gcttcgtgcc cgtggaccgc gaggacaaca cctactcgta caaagtgcgc tacacgctgg 18360

ccgtgggcga caaccgcgtg ctggacatgg ccagcaccta ctttgacatc cgcggcgtgc 18420

tggatcgggg ccctagcttc aaaccctact ccggcaccgc ctacaacagt ctggccccca 18480

agggagcacc caacacttgt cagtggacat ataaagccga tggtgaaact gccacagaaa 18540

aaacctatac atatggaaat gcacccgtgc agggcattaa catcacaaaa gatggtattc 18600

aacttggaac tgacaccgat gatcagccaa tctacgcaga taaaacctat cagcctgaac 18660

ctcaagtggg tgatgctgaa tggcatgaca tcactggtac tgatgaaaag tatggaggca 18720

gagctcttaa gcctgatacc aaaatgaagc cttgttatgg ttcttttgcc aagcctacta 18780

ataaagaagg aggtcaggca aatgtgaaaa caggaacagg cactactaaa gaatatgaca 18840

tagacatggc tttctttgac aacagaagtg cggctgctgc tggcctagct ccagaaattg 18900

ttttgtatac tgaaaatgtg gatttggaaa ctccagatac ccatattgta tacaaagcag 18960

gcacagatga cagcagctct tctattaatt tgggtcagca agccatgccc aacagaccta 19020

actacattgg tttcagagac aactttatcg ggctcatgta ctacaacagc actggcaata 19080

tgggggtgct ggccggtcag gcttctcagc tgaatgctgt ggttgacttg caagacagaa 19140

acaccgagct gtcctaccag ctcttgcttg actctctggg tgacagaacc cggtatttca 19200

gtatgtggaa tcaggcggtg gacagctatg atcctgatgt gcgcattatt gaaaatcatg 19260

gtgtggagga tgaacttccc aactattgtt tccctctgga tgctgttggc agaacagata 19320

cttatcaggg aattaaggct aatggaactg atcaaaccac atggaccaaa gatgacagtg 19380

tcaatgatgc taatgagata ggcaagggta atccattcgc catggaaatc aacatccaag 19440

ccaacctgtg gaggaacttc ctctacgcca acgtggccct gtacctgccc gactcttaca 19500

agtacacgcc ggccaatgtt accctgccca ccaacaccaa cacctacgat tacatgaacg 19560

gccgggtggt ggcgccctcg ctggtggact cctacatcaa catcggggcg cgctggtcgc 19620

tggatcccat ggacaacgtg aaccccttca accaccaccg caatgcgggg ctgcgctacc 19680

gctccatgct cctgggcaac gggcgctacg tgcccttcca catccaggtg ccccagaaat 19740

ttttcgccat caagagcctc ctgctcctgc ccgggtccta cacctacgag tggaacttcc 19800

gcaaggacgt caacatgatc ctgcagagct ccctcggcaa cgacctgcgc acggacgggg 19860

cctccatctc cttcaccagc atcaacctct acgccacctt cttccccatg gcgcacaaca 19920

cggcctccac gctcgaggcc atgctgcgca acgacaccaa cgaccagtcc ttcaacgact 19980

acctctcggc ggccaacatg ctctacccca tcccggccaa cgccaccaac gtgcccatct 20040

ccatcccctc gcgcaactgg gccgccttcc gcggctggtc cttcacgcgt ctcaagacca 20100

aggagacgcc ctcgctgggc tccgggttcg acccctactt cgtctactcg ggctccatcc 20160

cctacctcga cggcaccttc tacctcaacc acaccttcaa gaaggtctcc atcaccttcg 20220

actcctccgt cagctggccc ggcaacgacc ggctcctgac gcccaacgag ttcgaaatca 20280

agcgcaccgt cgacggcgag ggctacaacg tggcccagtg caacatgacc aaggactggt 20340

tcctggtcca gatgctggcc cactacaaca tcggctacca gggcttctac gtgcccgagg 20400

gctacaagga ccgcatgtac tccttcttcc gcaacttcca gcccatgagc cgccaggtgg 20460

tggacgaggt caactacaag gactaccagg ccgtcaccct ggcctaccag cacaacaact 20520

cgggcttcgt cggctacctc gcgcccacca tgcgccaggg ccagccctac cccgccaact 20580

acccctaccc gctcatcggc aagagcgccg tcaccagcgt cacccagaaa aagttcctct 20640

gcgacagggt catgtggcgc atccccttct ccagcaactt catgtccatg ggcgcgctca 20700

ccgacctcgg ccagaacatg ctctatgcca actccgccca cgcgctagac atgaatttcg 20760

aagtcgaccc catggatgag tccacccttc tctatgttgt cttcgaagtc ttcgacgtcg 20820

tccgagtgca ccagccccac cgcggcgtca tcgaggccgt ctacctgcgc acccccttct 20880

cggccggtaa cgccaccacc taagctcttg cttcttgcaa gccatggccg cgggctccgg 20940

cgagcaggag ctcagggcca tcatccgcga cctgggctgc gggccctact tcctgggcac 21000

cttcgataag cgcttcccgg gattcatggc cccgcacaag ctggcctgcg ccatcgtcaa 21060

cacggccggc cgcgagaccg ggggcgagca ctggctggcc ttcgcctgga acccgcgctc 21120

gaacacctgc tacctcttcg acccccttcgg gttctcggac gagcgcctca agcagatcta 21180

ccagttcgag tacgagggcc tgctgcgccg cagcgccctg gccaccgagg accgctgcgt 21240

caccctggaa aagtccaccc agaccgtgca gggtccgcgc tcggccgcct gcgggctctt 21300

ctgctgcatg ttcctgcacg ccttcgtgca ctggcccgac cgccccatgg acaagaaccc 21360

caccatgaac ttgctgacgg gggtgcccaa cggcatgctc cagtcgcccc aggtggaacc 21420

caccctgcgc cgcaaccagg aggcgctcta ccgcttcctc aactcccact ccgcctactt 21480

tcgctcccac cgcgcgcgca tcgagaaggc caccgccttc gaccgcatga atcaagacat 21540

gtaaaccgtg tgtgtatgtt aaatgtcttt aataaacagc actttcatgt tacacatgca 21600

tctgagatga tttatttaga aatcgaaagg gttctgccgg gtctcggcat ggcccgcggg 21660

cagggacacg ttgcggaact ggtacttggc cagccacttg aactcgggga tcagcagttt 21720

gggcagcggg gtgtcgggga aggagtcggt ccacagcttc cgcgtcagtt gcagggcgcc 21780

cagcaggtcg ggcgcggaga tcttgaaatc gcagttggga cccgcgttct gcgcgcggga 21840

gttgcggtac acggggttgc agcactggaa caccatcagg gccgggtgct tcacgctcgc 21900

cagcaccgtc gcgtcggtga tgctctccac gtcgaggtcc tcggcgttgg ccatcccgaa 21960

gggggtcatc ttgcaggtct gccttcccat ggtgggcacg cacccgggct tgtggttgca 22020

atcgcagtgc agggggatca gcatcatctg ggcctggtcg gcgttcatcc ccgggtacat 22080

ggccttcatg aaagcctcca attgcctgaa cgcctgctgg gccttggctc cctcggtgaa 22140

gaagaccccg caggacttgc tagagaactg gttggtggcg cacccggcgt cgtgcacgca 22200

gcagcgcgcg tcgttgttgg ccagctgcac cacgctgcgc ccccagcggt tctgggtgat 22260

cttggcccgg tcggggttct ccttcagcgc gcgctgcccg ttctcgctcg ccacatccat 22320

ctcgatcatg tgctccttct ggatcatggt ggtcccgtgc aggcaccgca gcttgccctc 22380

ggcctcggtg cacccgtgca gccacagcgc gcacccggtg cactcccagt tcttgtgggc 22440

gatctgggaa tgcgcgtgca cgaagccctg caggaagcgg cccatcatgg tggtcagggt 22500

cttgttgcta gtgaaggtca gcggaatgcc gcggtgctcc tcgttgatgt acaggtggca 22560

gatgcggcgg tacacctcgc cctgctcggg catcagctgg aagttggctt tcaggtcggt 22620

ctccacgcgg tagcggtcca tcagcatagt catgatttcc atacccttct cccaggccga 22680

gacgatgggc aggctcatag ggttcttcac catcatctta gcgctagcag ccgcggccag 22740

ggggtcgctc tcgtccaggg tctcaaagct ccgcttgccg tccttctcgg tgatccgcac 22800

cgggggggtag ctgaagccca cggccgccag ctcctcctcg gcctgtcttt cgtcctcgct 22860

gtcctggctg acgtcctgca ggaccacatg cttggtcttg cggggtttct tcttgggcgg 22920

cagcggcggc ggagatgttg gagatggcga gggggagcgc gagttctcgc tcaccactac 22980

tatctcttcc tcttcttggt ccgaggccac gcggcggtag gtatgtctct tcgggggcag 23040

aggcggaggc gacgggctct cgccgccgcg acttggcgga tggctggcag agccccttcc 23100

gcgttcgggg gtgcgctccc ggcggcgctc tgactgactt cctccgcggc cggccattgt 23160

gttctcctag ggaggaacaa caagcatgga gactcagcca tcgccaacct cgccatctgc 23220

ccccaccgcc gacgagaagc agcagcagca gaatgaaagc ttaaccgccc cgccgcccag 23280

ccccgccacc tccgacgcgg ccgtcccaga catgcaagag atggaggaat ccatcgagat 23340

tgacctgggc tatgtgacgc ccgcggagca cgaggaggag ctggcagtgc gcttttcaca 23400

agaagagata caccaagaac agccagagca ggaagcagag aatgagcaga gtcaggctgg 23460

gctcgagcat gacggcgact acctccacct gagcgggggg gaggacgcgc tcatcaagca 23520

tctggcccgg caggccacca tcgtcaagga tgcgctgctc gaccgcaccg aggtgccccct 23580

cagcgtggag gagctcagcc gcgcctacga gttgaacctc ttctcgccgc gcgtgccccc 23640

caagcgccag cccaatggca cctgcgagcc caacccgcgc ctcaacttct acccggtctt 23700

cgcggtgccc gaggccctgg ccacctacca catctttttc aagaaccaaa agatccccgt 23760

ctcctgccgc gccaaccgca cccgcgccga cgccctttc aacctgggtc ccggcgcccg 23820

cctacctgat atcgcctcct tggaagaggt tcccaagatc ttcgagggtc tgggcagcga 23880

cgagactcgg gccgcgaacg ctctgcaagg agaaggagga gagcatgagc accacagcgc 23940

cctggtcgag ttggaaggcg acaacgcgcg gctggcggtg ctcaaacgca cggtcgagct 24000

gacccatttc gcctacccgg ctctgaacct gccccccaaa gtcatgagcg cggtcatgga 24060

ccaggtgctc atcaagcgcg cgtcgcccat ctccgaggac gagggcatgc aagactccga 24120

ggagggcaag cccgtggtca gcgacgagca gctggcccgg tggctgggtc ctaatgctag 24180

tccccagagt ttggaagagc ggcgcaaact catgatggcc gtggtcctgg tgaccgtgga 24240

gctggagtgc ctgcgccgct tcttcgccga cgcggagacc ctgcgcaagg tcgaggagaa 24300

cctgcactac ctcttcaggc acgggttcgt gcgccaggcc tgcaagatct ccaacgtgga 24360

gctgaccaac ctggtctcct acatgggcat cttgcacgag aaccgcctgg ggcagaacgt 24420

gctgcacacc accctgcgcg gggaggcccg gcgcgactac atccgcgact gcgtctacct 24480

ctacctctgc cacacctggc agacgggcat gggcgtgtgg cagcagtgtc tggaggagca 24540

gaacctgaaa gagctctgca agctcctgca gaagaacctc aagggtctgt ggaccgggtt 24600

cgacgagcgc accaccgcct cggacctggc cgacctcatt ttccccgagc gcctcaggct 24660

gacgctgcgc aacggcctgc ccgactttat gagccaaagc atgttgcaaa actttcgctc 24720

tttcatcctc gaacgctccg gaatcctgcc cgccacctgc tccgcgctgc cctcggactt 24780

cgtgccgctg accttccgcg agtgcccccc gccgctgtgg agccactgct acctgctgcg 24840

cctggccaac tacctggcct accactcgga cgtgatcgag gacgtcagcg gcgagggcct 24900

gctcgagtgc cactgccgct gcaacctctg cacgccgcac cgctccctgg cctgcaaccc 24960

ccagctgctg agcgagaccc agatcatcgg caccttcgag ttgcaagggc ccagcgaagg 25020

cgagggttca gccgccaagg ggggtctgaa actcaccccg gggctgtgga cctcggccta 25080

cttgcgcaag ttcgtgcccg aggactacca tcccttcgag atcaggttct acgaggacca 25140

atcccatccg cccaaggccg agctgtcggc ctgcgtcatc acccaggggg cgatcctggc 25200

ccaattgcaa gccatccaga aatcccgcca agaattcttg ctgaaaaagg gccgcggggt 25260

ctacctcgac ccccagaccg gtgaggagct caaccccggc ttcccccagg atgccccgag 25320

gaaacaagaa gctgaaagtg gagctgccgc ccgtggagga tttggaggaa gactgggaga 25380

acagcagtca ggcagaggag gaggagatgg aggaagactg ggacagcact caggcagagg 25440

aggacagcct gcaagacagt ctggaggaag acgaggagga ggcagaggag gaggtggaag 25500

aagcagccgc cgccagaccg tcgtcctcgg cgggggagaa agcaagcagc acggatacca 25560

tctccgctcc gggtcggggt cccgctcgac cacacagtag atgggacgag accggacgat 25620

tcccgaaccc caccacccag accggtaaga aggagcggca gggatacaag tcctggcggg 25680

ggcacaaaaa cgccatcgtc tcctgcttgc aggcctgcgg gggcaacatc tccttcaccc 25740

ggcgctacct gctcttccac cgcggggtga actttccccg caacatcttg cattactacc 25800

gtcacctcca cagcccctac tacttccaag aagaggcagc agcagcagaa aaagaccagc 25860

agaaaaccag cagctagaaa atccacagcg gcggcagcag gtggactgag gatcgcggcg 25920

aacgagccgg cgcaaacccg ggagctgagg aaccggatct ttcccaccct ctatgccatc 25980

ttccagcaga gtcgggggca ggagcaggaa ctgaaagtca agaaccgttc tctgcgctcg 26040

ctcacccgca gttgtctgta tcacaagagc gaagaccaac ttcagcgcac tctcgaggac 26100

gccgaggctc tcttcaacaa gtactgcgcg ctcactctta aagagtagcc cgcgcccgcc 26160

cagtcgcaga aaaaggcggg aattacgtca cctgtgccct tcgccctagc cgcctccacc 26220

catcatcatg agcaaagaga ttcccacgcc ttacatgtgg agctaccagc cccagatggg 26280

cctggccgcc ggtgccgccc aggactactc cacccgcatg aattggctca gcgccgggcc 26340

cgcgatgatc tcacgggtga atgacatccg cgcccaccga aaccagatac tcctagaaca 26400

gtcagcgctc accgccacgc cccgcaatca cctcaatccg cgtaattggc ccgccgccct 26460

ggtgtaccag gaaattcccc agcccacgac cgtactactt ccgcgagacg cccaggccga 26520

agtccagctg actaactcag gtgtccagct ggcgggcggc gccaccctgt gtcgtcaccg 26580

ccccgctcag ggtataaagc ggctggtgat ccggggcaga ggcacacagc tcaacgacga 26640

ggtggtgagc tcttcgctgg gtctgcgacc tgacggagtc ttccaactcg ccggatcggg 26700

gagatcttcc ttcacgcctc gtcaggccgt cctgactttg gagagttcgt cctcgcagcc 26760

ccgctcgggt ggcatcggca ctctccagtt cgtggaggag ttcactccct cggtctactt 26820

caacccccttc tccggctccc ccggccacta cccggacgag ttcatcccga acttcgacgc 26880

catcagcgag tcggtggacg gctacgattg aaactaatca ccccccttatc cagtgaaata 26940

aagatcatat tgatgatgat tttacagaaa taaaaaataa tcatttgatt tgaaataaag 27000

atacaatcat attgatgatt tgagtttaac aaaaaaataa agaatcactt acttgaaatc 27060

tgataccagg tctctgtcca tgttttctgc caacaccact tcactcccct cttcccagct 27120

ctggtactgc aggccccggc gggctgcaaa cttcctccac acgctgaagg ggatgtcaaa 27180

ttcctcctgt ccctcaatct tcattttatc ttctatcaga tgtccaaaaa gcgcgtccgg 27240

gtggatgatg acttcgaccc cgtctacccc tacgatgcag acaacgcacc gaccgtgccc 27300

ttcatcaacc ccccttcgt ctcttcagat ggattccaag agaagcccct gggggtgttg 27360

tccctgcgac tggccgaccc cgtcaccacc aagaacgggg aaatcaccct caagctggga 27420

gaggggtgg acctcgattc ctcgggaaaa ctcatctcca acacggccac caaggccgcc 27480

gcccctctca gtttttccaa caacaccatt tcccttaaca tggatcaccc cttttacact 27540

aaagatggaa aattatcctt acaagtttct ccaccattaa atatactgag aacaagcatt 27600

ctaaacacac tagctttagg ttttggatca ggtttaggac tccgtggctc tgccttggca 27660

gtacagttag tctctccact tacatttgat actgatggaa acataaagct taccttagac 27720

agaggtttgc atgttacaac aggagatgca attgaaagca acataagctg ggctaaaggt 27780

ttaaaatttg aagatggagc catagcaacc aacattggaa atgggttaga gtttggaagc 27840

agtagtacag aaacaggtgt tgatgatgct tacccaatcc aagttaaact tggatctggc 27900

cttagctttg acagtacagg agccataatg gctggtaaca aagaagacga taaactcact 27960

ttgtggacaa cacctgatcc atcaccaaac tgtcaaatac tcgcagaaaa tgatgcaaaa 28020

ctaacacttt gcttgactaa atgtggtagt caaatactgg ccactgtgtc agtcttagtt 28080

gtaggaagtg gaaacctaaa ccccattact ggcaccgtaa gcagtgctca ggtgtttcta 28140

cgttttgatg caaacggtgt tcttttaaca gaacattcta cactaaaaaa atactggggg 28200

tataggcagg gagatagcat agatggcact ccatatacca atgctgtagg attcatgccc 28260

aatttaaaag cttatccaaa gtcacaaagt tctactacta aaaataatat agtagggcaa 28320

gtatacatga atggagatgt ttcaaaacct atgcttctca ctataaccct caatggtact 28380

gatgacagca acagtacata ttcaatgtca ttttcataca cctggactaa tggaagctat 28440

gttggagcaa catttggggc taactcttat accttctcat acatcgccca agaatgaaca 28500

ctgtatccca ccctgcatgc caacccttcc caccccactc tgtggaacaa actctgaaac 28560

acaaaataaa ataaagttca agtgttttat tgattcaaca gttttacagg attcgagcag 28620

ttatttttcc tccaccctcc caggacatgg aatacaccac cctctccccc cgcacagcct 28680

tgaacatctg aatgccattg gtgatggaca tgcttttggt ctccacgttc cacacagttt 28740

cagagcgagc cagtctcggg tcggtcaggg agatgaaacc ctccgggcac tcccgcatct 28800

gcacctcaca gctcaacagc tgaggattgt cctcggtggt cgggatcacg gttatctgga 28860

agaagcagaa gagcggcggt gggaatcata gtccgcgaac gggatcggcc ggtggtgtcg 28920

catcaggccc cgcagcagtc gctgccgccg ccgctccgtc aagctgctgc tcaggggtc 28980

cgggtccagg gactccctca gcatgatgcc cacggccctc agcatcagtc gtctggtgcg 29040

gcgggcgcag cagcgcatgc ggatctcgct caggtcgctg cagtacgtgc aacacagaac 29100

caccaggttg ttcaacagtc catagttcaa cacgctccag ccgaaactca tcgcgggaag 29160

gatgctaccc acgtggccgt cgtaccagat cctcaggtaa atcaagtggt gccccctcca 29220

gaacacgctg cccacgtaca tgatctcctt gggcatgtgg cggttcacca cctcccggta 29280

ccacatcacc ctctggttga acatgcagcc ccggatgatc ctgcggaacc acagggccag 29340

caccgccccg cccgccatgc agcgaagaga ccccgggtcc cggcaatggc aatggaggac 29400

ccaccgctcg tacccgtgga tcatctggga gctgaacaag tctatgttgg cacagcacag 29460

gcatatgctc atgcatctct tcagcactct caactcctcg ggggtcaaaa ccatatccca 29520

gggcacgggg aactcttgca ggacagcgaa ccccgcagaa cagggcaatc ctcgcacaga 29580

acttacattg tgcatggaca gggtatcgca atcaggcagc accgggtgat cctccaccag 29640

agaagcgcgg gtctcggtct cctcacagcg tggtaagggg gccggccgat acgggtgatg 29700

gcgggacgcg gctgatcgtg ttcgcgaccg tgtcatgatg cagttgcttt cggacatttt 29760

cgtacttgct gtagcagaac ctggtccggg cgctgcacac cgatcgccgg cggcggtctc 29820

ggcgcttgga acgctcggtg ttgaaattgt aaaacagcca ctctctcaga ccgtgcagca 29880

gatctagggc ctcaggagtg atgaagatcc catcatgcct gatggctctg atcacatcga 29940

ccaccgtgga atgggccaga cccagccaga tgatgcaatt ttgttgggtt tcggtgacgg 30000

cgggggaggg aagaacagga agaaccatga ttaactttta atccaaacgg tctcggagta 30060

cttcaaaatg aagatcgcgg agatggcacc tctcgccccc gctgtgttgg tggaaaataa 30120

cagccaggtc aaaggtgata cggttctcga gatgttccac ggtggcttcc agcaaagcct 30180

ccacgcgcac atccagaaac aagacaatag cgaaagcggg agggttctct aattcctcaa 30240

tcatcatgtt acactcctgc accatcccca gataattttc atttttccag ccttgaatga 30300

ttcgaactag ttcctgaggt aaatccaagc cagccatgat aaagagctcg cgcagagcgc 30360

cctccaccgg cattcttaag cacaccctca taattccaag atattctgct cctggttcac 30420

ctgcagcaga ttgacaagcg gaatatcaaa atctctgccg cgatccctga gctcctccct 30480

cagcaataac tgtaagtact ctttcatatc ctctccgaaa tttttagcca taggaccacc 30540

aggaataaga ttagggcaag ccacagtaca gataaaccga agtcctcccc agtgagcatt 30600

gccaaatgca agactgctat aagcatgctg gctagacccg gtgatatctt ccagataact 30660

ggacagaaaa tcgcccaggc aatttttaag aaaatcaaca aaagaaaaat cctccaggtg 30720

gacgtttaga gcctcgggaa caacgatgaa gtaaatgcaa gcggtgcgtt ccagcatggt 30780

tagttagctg atctgtagaa aaaacaaaaa tgaacattaa accatgctag cctggcgaac 30840

aggtgggtaa atcgttctct ccagcaccag gcaggccacg gggtctccgg cgcgaccctc 30900

gtaaaaattg tcgctatgat tgaaaaccat cacagagaga cgttcccggt ggccggcgtg 30960

aatgattcga caagatgaat acacccccgg aacattggcg tccgcgagtg aaaaaaagcg 31020

cccgaggaag caataaggca ctacaatgct cagtctcaag tccagcaaag cgatgccatg 31080

cggatgaagc acaaaattct caggtgcgta caaaatgtaa ttactcccct cctgcacagg 31140

cagcaaagcc cccgatccct ccaggtacac atacaaagcc tcagcgtcca tagcttaccg 31200

agcagcagca cacaacaggc gcaagagtca gagaaaggct gagctctaac ctgtccaccc 31260

gctctctgct caatatatag cccagatcta cactgacgta aaggccaaag tctaaaaata 31320

cccgccaaat aatcacacac gcccagcaca cgcccagaaa ccggtgacac actcaaaaaa 31380

atacgcgcac ttcctcaaac gcccaaaact gccgtcattt ccgggttccc acgctacgtc 31440

atcaaaacac gactttcaaa ttccgtcgac cgttaaaaac gtcacccgcc ccgcccctaa 31500

cggtcgcccg tctctcagcc aatcagcgcc ccgcatcccc aaattcaaac acctcatttg 31560

catattaacg cgcacaaaaa gtttgaggta tattattgat gatg 31604

<210> 3
<211> 11447
<212> DNA
<213> Venezuelan equine encephalitis virus

<400> 3
atgggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgctggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gacatagtct agtccgccaa 7560

gatgttcccg ttccagccaa tgtatccgat gcagccaatg ccctatcgca acccgttcgc 7620

ggccccgcgc aggccctggt tccccagaac cgacccttttt ctggcgatgc aggtgcagga 7680

attaacccgc tcgatggcta acctgacgtt caagcaacgc cgggacgcgc cacctgaggg 7740

gccatccgct aagaaaccga agaaggaggc ctcgcaaaaa cagaaagggg gaggccaagg 7800

gaagaagaag aagaaccaag ggaagaagaa ggctaagaca gggccgccta atccgaaggc 7860

acagaatgga aacaagaaga agaccaacaa gaaaccaggc aagagacagc gcatggtcat 7920

gaaattggaa tctgacaaga cgttcccaat catgttggaa gggaagataa acggctacgc 7980

ttgtgtggtc ggagggaagt tattcaggcc gatgcatgtg gaaggcaaga tcgacaacga 8040

cgttctggcc gcgcttaaga cgaagaaagc atccaaatac gatcttgagt atgcagatgt 8100

gccacagaac atgcgggccg atacattcaa atacacccat gagaaacccc aaggctatta 8160

cagctggcat catggagcag tccaatatga aaatgggcgt ttcacggtgc cgaaaggagt 8220

tggggccaag ggagacagcg gacgacccat tctggataac cagggacggg tggtcgctat 8280

tgtgctggga ggtgtgaatg aaggatctag gacagccctt tcagtcgtca tgtggaacga 8340

gaagggagtt accgtgaagt atactccgga gaactgcgag caatggtcac tagtgaccac 8400

catgtgtctg ctcgccaatg tgacgttccc atgtgctcaa ccaccaattt gctacgacag 8460

aaaaccagca gagactttgg ccatgctcag cgttaacgtt gacaacccgg gctacgatga 8520

gctgctggaa gcagctgtta agtgccccgg aaggaaaagg agatccaccg aggagctgtt 8580

taaggagtat aagctaacgc gcccttacat ggccagatgc atcagatgtg cagttgggag 8640

ctgccatagt ccaatagcaa tcgaggcagt aaagagcgac gggcacgacg gttatgttag 8700

acttcagact tcctcgcagt atggcctgga ttcctccggc aacttaaagg gcaggaccat 8760

gcggtatgac atgcacggga ccattaaaga gataccacta catcaagtgt cactccatac 8820

atctcgcccg tgtcacattg tggatgggca cggttatttc ctgcttgcca ggtgcccggc 8880

aggggactcc atcaccatgg aatttaagaa agattccgtc acacactcct gctcggtgcc 8940

gtatgaagtg aaatttaatc ctgtaggcag agaactctat actcatcccc cagaacacgg 9000

agtagagcaa gcgtgccaag tctacgcaca tgatgcacag aacagaggag cttatgtcga 9060

gatgcacctc ccgggctcag aagtggacag cagtttggtt tccttgagcg gcagttcagt 9120

caccgtgaca cctcctgttg ggactagcgc cctggtggaa tgcgagtgtg gcggcacaaa 9180

gatctccgag accatcaaca agacaaaaca gttcagccag tgcacaaaga aggagcagtg 9240

cagagcatat cggctgcaga acgataagtg ggtgtataat tctgacaaac tgcccaaagc 9300

agcgggagcc accttaaaag gaaaactgca tgtcccattc ttgctggcag acggcaaatg 9360

caccgtgcct ctagcaccag aacctatgat aacctttggt ttcagatcag tgtcactgaa 9420

actgcaccct aagaatccca catatctaac cacccgccaa cttgctgatg agcctcacta 9480

cacgcacgag ctcatatctg aaccagctgt taggaatttt accgtcaccg aaaaagggtg 9540

ggagtttgta tggggaaacc acccgccgaa aaggttttgg gcacaggaaa cagcacccgg 9600

aaatccacat gggctaccgc acgaggtgat aactcattat taccacagat accctatgtc 9660

caccatcctg ggtttgtcaa tttgtgccgc cattgcaacc gtttccgttg cagcgtctac 9720

ctggctgttt tgcagatcta gagttgcgtg cctaactcct taccggctaa cacctaacgc 9780

taggatacca ttttgtctgg ctgtgctttg ctgcgcccgc actgcccggg ccgagaccac 9840

ctgggagtcc ttggatcacc tatggaacaa taaccaacag atgttctgga ttcaattgct 9900

gatccctctg gccgccttga tcgtagtgac tcgcctgctc aggtgcgtgt gctgtgtcgt 9960

gccttttta gtcatggccg gcgccgcagg cgccggcgcc tacgagcacg cgaccacgat 10020

gccgagccaa gcgggaatct cgtataacac tatagtcaac agagcaggct acgcaccact 10080

ccctatcagc ataacaccaa caaagatcaa gctgatacct acagtgaact tggagtacgt 10140

cacctgccac tacaaaacag gaatggattc accagccatc aaatgctgcg gatctcagga 10200

atgcactcca acttacaggc ctgatgaaca gtgcaaagtc ttcacagggg tttacccgtt 10260

catgtggggt ggtgcatatt gcttttgcga cactgagaac acccaagtca gcaaggccta 10320

cgtaatgaaa tctgacgact gccttgcgga tcatgctgaa gcatataaag cgcacacagc 10380

ctcagtgcag gcgttcctca acatcacagt gggagaacac tctattgtga ctaccgtgta 10440

tgtgaatgga gaaactcctg tgaatttcaa tggggtcaaa ttaactgcag gtccgctttc 10500

cacagcttgg acacccttg atcgcaaaat cgtgcagtat gccggggaga tctataatta 10560

tgattttcct gagtatgggg caggacaacc aggagcattt ggagatatac aatccagaac 10620

agtctcaagc tcagatctgt atgccaatac caacctagtg ctgcagagac ccaaagcagg 10680

agcgatccac gtgccataca ctcaggcacc ttcgggtttt gagcaatgga agaaagataa 10740

agctccatca ttgaaattta ccgccccttt cggatgcgaa atatatacaa accccattcg 10800

cgccgaaaac tgtgctgtag ggtcaattcc attagccttt gacattcccg acgccttgtt 10860

caccagggtg tcagaaacac cgacactttc agcggccgaa tgcactctta acgagtgcgt 10920

gtattcttcc gactttggtg ggatcgccac ggtcaagtac tcggccagca agtcaggcaa 10980

gtgcgcagtc catgtgccat cagggactgc taccctaaaa gaagcagcag tcgagctaac 11040

cgagcaaggg tcggcgacta tccatttctc gaccgcaaat atccacccgg agttcaggct 11100

ccaaatatgc acatcatatg ttacgtgcaa aggtgattgt caccccccga aagaccatat 11160

tgtgacacac cctcagtatc acgcccaaac atttacagcc gcggtgtcaa aaaccgcgtg 11220

gacgtggtta acatccctgc tgggaggatc agccgtaatt attataattg gcttggtgct 11280

ggctactatt gtggccatgt acgtgctgac caaccagaaa cataattgaa tacagcagca 11340

attggcaagc tgcttacata gaactcgcgg cgattggcat gccgccttaa aatttttatt 11400

ttatttttc ttttcttttc cgaatcggat tttgttttta atatttc 11447

<210> 4
<211> 9577
<212> DNA
<213> Artificial Sequence

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

<400> 4
atgggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgctggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gactctagaa tagtctttaa 7560

ttaagccacc atggcaggca tgtttcaggc gctgagcgaa ggctgcaccc cgtatgatat 7620

taaccagatg ctgaacgtgc tgggcgatca tcaggtctca ggccttgagc agcttgagag 7680

tataatcaac tttgaaaaac tgactgaatg gaccagttct aatgttatgc ctatcctgtc 7740

tcctctgaca aagggcatcc tgggcttcgt gtttaccctg accgtgcctt ctgagagagg 7800

acttagctgc attagcgaag cggatgcgac caccccggaa agcgcgaacc tgggcgaaga 7860

aattctgagc cagctgtatc tttggccaag ggtgacctac cattccccta gttatgctta 7920

ccaccaattt gaaagacgag ccaaatataa aagacacttc cccggctttg gccagagcct 7980

gctgtttggc taccctgtgt acgtgttcgg cgattgcgtg cagggcgatt gggatgcgat 8040

tcgctttcgc tattgcgcgc cgccgggcta tgcgctgctg cgctgcaacg ataccaacta 8100

tagcgctctg ctggctgtgg gggccctaga aggacccagg aatcaggact ggcttggtgt 8160

cccaagacaa cttgtaactc ggatgcaggc tattcagaat gccggcctgt gtaccctggt 8220

ggccatgctg gaagagacaa tcttctggct gcaagcgttt ctgatggcgc tgaccgatag 8280

cggcccgaaa accaacatta ttgtggatag ccagtatgtg atgggcatta gcaaaccgag 8340

ctttcaggaa tttgtggatt gggaaaacgt gagcccggaa ctgaacagca ccgatcagcc 8400

gttttggcaa gccggaatcc tggccagaaa tctggtgcct atggtggcca cagtgcaggg 8460

ccagaacctg aagtaccagg gtcagtcact agtcatctct gcttctatca ttgtcttcaa 8520

cctgctggaa ctggaaggtg attatcgaga tgatggcaac gtgtgggtgc ataccccgct 8580

gagcccgcgc accctgaacg cgtgggtgaa agcggtggaa gaaaaaaaag gtattccagt 8640

tcacctagag ctggccagta tgaccaacat ggagctcatg agcagtattg tgcatcagca 8700

ggtcagaaca tacggccccg tgttcatgtg tctcggcgga ctgcttacaa tggtggctgg 8760

tgctgtgtgg ctgacagtgc gagtgctcga gctgttccgg gccgcgcagc tggccaacga 8820

cgtggtcctc cagatcatgg agctttgtgg tgcagcgttt cgccaggtgt gccataccac 8880

cgtgccgtgg ccgaacgcga gcctgacccc gaaatggaac aacgaaacca cccagcccca 8940

gatcgccaac tgcagcgtgt atgacttttt tgtgtggctc cattattatt ctgttcgaga 9000

cacactttgg ccaagggtga cctaccatat gaacaaatat gcgtatcata tgctggaaag 9060

acgagccaaa tataaaagag gaccaggacc tggcgctaaa tttgtggccg cctggacact 9120

gaaagccgct gctggtcctg gacctggcca gtacatcaag gccaacagca agttcatcgg 9180

catcaccgaa ctcggacccg gaccaggctg atgattcgaa cggccgtatc acgcccaaac 9240

atttacagcc gcggtgtcaa aaaccgcgtg gacgtggtta acatccctgc tgggaggatc 9300

agccgtaatt attataattg gcttggtgct ggctactatt gtggccatgt acgtgctgac 9360

caaccagaaa cataattgaa tacagcagca attggcaagc tgcttacata gaactcgcgg 9420

cgattggcat gccgccttaa aatttttatt ttatttttc ttttcttttc cgaatcggat 9480

tttgttttta atatttcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 9540

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 9577

<210> 5
<211> 11447
<212> DNA
<213> Venezuelan equine encephalitis virus

<400> 5
atgggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgctggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gacatagtct agtccgccaa 7560

gatgttcccg ttccagccaa tgtatccgat gcagccaatg ccctatcgca acccgttcgc 7620

ggccccgcgc aggccctggt tccccagaac cgacccttttt ctggcgatgc aggtgcagga 7680

attaacccgc tcgatggcta acctgacgtt caagcaacgc cgggacgcgc cacctgaggg 7740

gccatccgct aagaaaccga agaaggaggc ctcgcaaaaa cagaaagggg gaggccaagg 7800

gaagaagaag aagaaccaag ggaagaagaa ggctaagaca gggccgccta atccgaaggc 7860

acagaatgga aacaagaaga agaccaacaa gaaaccaggc aagagacagc gcatggtcat 7920

gaaattggaa tctgacaaga cgttcccaat catgttggaa gggaagataa acggctacgc 7980

ttgtgtggtc ggagggaagt tattcaggcc gatgcatgtg gaaggcaaga tcgacaacga 8040

cgttctggcc gcgcttaaga cgaagaaagc atccaaatac gatcttgagt atgcagatgt 8100

gccacagaac atgcgggccg atacattcaa atacacccat gagaaacccc aaggctatta 8160

cagctggcat catggagcag tccaatatga aaatgggcgt ttcacggtgc cgaaaggagt 8220

tggggccaag ggagacagcg gacgacccat tctggataac cagggacggg tggtcgctat 8280

tgtgctggga ggtgtgaatg aaggatctag gacagccctt tcagtcgtca tgtggaacga 8340

gaagggagtt accgtgaagt atactccgga gaactgcgag caatggtcac tagtgaccac 8400

catgtgtctg ctcgccaatg tgacgttccc atgtgctcaa ccaccaattt gctacgacag 8460

aaaaccagca gagactttgg ccatgctcag cgttaacgtt gacaacccgg gctacgatga 8520

gctgctggaa gcagctgtta agtgccccgg aaggaaaagg agatccaccg aggagctgtt 8580

taaggagtat aagctaacgc gcccttacat ggccagatgc atcagatgtg cagttgggag 8640

ctgccatagt ccaatagcaa tcgaggcagt aaagagcgac gggcacgacg gttatgttag 8700

acttcagact tcctcgcagt atggcctgga ttcctccggc aacttaaagg gcaggaccat 8760

gcggtatgac atgcacggga ccattaaaga gataccacta catcaagtgt cactccatac 8820

atctcgcccg tgtcacattg tggatgggca cggttatttc ctgcttgcca ggtgcccggc 8880

aggggactcc atcaccatgg aatttaagaa agattccgtc acacactcct gctcggtgcc 8940

gtatgaagtg aaatttaatc ctgtaggcag agaactctat actcatcccc cagaacacgg 9000

agtagagcaa gcgtgccaag tctacgcaca tgatgcacag aacagaggag cttatgtcga 9060

gatgcacctc ccgggctcag aagtggacag cagtttggtt tccttgagcg gcagttcagt 9120

caccgtgaca cctcctgttg ggactagcgc cctggtggaa tgcgagtgtg gcggcacaaa 9180

gatctccgag accatcaaca agacaaaaca gttcagccag tgcacaaaga aggagcagtg 9240

cagagcatat cggctgcaga acgataagtg ggtgtataat tctgacaaac tgcccaaagc 9300

agcgggagcc accttaaaag gaaaactgca tgtcccattc ttgctggcag acggcaaatg 9360

caccgtgcct ctagcaccag aacctatgat aacctttggt ttcagatcag tgtcactgaa 9420

actgcaccct aagaatccca catatctaac cacccgccaa cttgctgatg agcctcacta 9480

cacgcacgag ctcatatctg aaccagctgt taggaatttt accgtcaccg aaaaagggtg 9540

ggagtttgta tggggaaacc acccgccgaa aaggttttgg gcacaggaaa cagcacccgg 9600

aaatccacat gggctaccgc acgaggtgat aactcattat taccacagat accctatgtc 9660

caccatcctg ggtttgtcaa tttgtgccgc cattgcaacc gtttccgttg cagcgtctac 9720

ctggctgttt tgcagatcta gagttgcgtg cctaactcct taccggctaa cacctaacgc 9780

taggatacca ttttgtctgg ctgtgctttg ctgcgcccgc actgcccggg ccgagaccac 9840

ctgggagtcc ttggatcacc tatggaacaa taaccaacag atgttctgga ttcaattgct 9900

gatccctctg gccgccttga tcgtagtgac tcgcctgctc aggtgcgtgt gctgtgtcgt 9960

gccttttta gtcatggccg gcgccgcagg cgccggcgcc tacgagcacg cgaccacgat 10020

gccgagccaa gcgggaatct cgtataacac tatagtcaac agagcaggct acgcaccact 10080

ccctatcagc ataacaccaa caaagatcaa gctgatacct acagtgaact tggagtacgt 10140

cacctgccac tacaaaacag gaatggattc accagccatc aaatgctgcg gatctcagga 10200

atgcactcca acttacaggc ctgatgaaca gtgcaaagtc ttcacagggg tttacccgtt 10260

catgtggggt ggtgcatatt gcttttgcga cactgagaac acccaagtca gcaaggccta 10320

cgtaatgaaa tctgacgact gccttgcgga tcatgctgaa gcatataaag cgcacacagc 10380

ctcagtgcag gcgttcctca acatcacagt gggagaacac tctattgtga ctaccgtgta 10440

tgtgaatgga gaaactcctg tgaatttcaa tggggtcaaa ttaactgcag gtccgctttc 10500

cacagcttgg acacccttg atcgcaaaat cgtgcagtat gccggggaga tctataatta 10560

tgattttcct gagtatgggg caggacaacc aggagcattt ggagatatac aatccagaac 10620

agtctcaagc tcagatctgt atgccaatac caacctagtg ctgcagagac ccaaagcagg 10680

agcgatccac gtgccataca ctcaggcacc ttcgggtttt gagcaatgga agaaagataa 10740

agctccatca ttgaaattta ccgccccttt cggatgcgaa atatatacaa accccattcg 10800

cgccgaaaac tgtgctgtag ggtcaattcc attagccttt gacattcccg acgccttgtt 10860

caccagggtg tcagaaacac cgacactttc agcggccgaa tgcactctta acgagtgcgt 10920

gtattcttcc gactttggtg ggatcgccac ggtcaagtac tcggccagca agtcaggcaa 10980

gtgcgcagtc catgtgccat cagggactgc taccctaaaa gaagcagcag tcgagctaac 11040

cgagcaaggg tcggcgacta tccatttctc gaccgcaaat atccacccgg agttcaggct 11100

ccaaatatgc acatcatatg ttacgtgcaa aggtgattgt caccccccga aagaccatat 11160

tgtgacacac cctcagtatc acgcccaaac atttacagcc gcggtgtcaa aaaccgcgtg 11220

gacgtggtta acatccctgc tgggaggatc agccgtaatt attataattg gcttggtgct 11280

ggctactatt gtggccatgt acgtgctgac caaccagaaa cataattgaa tacagcagca 11340

attggcaagc tgcttacata gaactcgcgg cgattggcat gccgccttaa aatttttatt 11400

ttatttttc ttttcttttc cgaatcggat tttgttttta atatttc 11447

<210> 6
<211> 7894
<212> DNA
<213> Artificial Sequence

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

<400> 6
atgggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgctggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gactatcacg cccaaacatt 7560

tacagccgcg gtgtcaaaaa ccgcgtggac gtggttaaca tccctgctgg gaggatcagc 7620

cgtaattatt ataattggct tggtgctggc tactattgtg gccatgtacg tgctgaccaa 7680

ccagaaacat aattgaatac agcagcaatt ggcaagctgc ttacatagaa ctcgcggcga 7740

ttggcatgcc gccttaaaat ttttatttta ttttttcttt tcttttccga atcggatttt 7800

gtttttaata tttcaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 7860

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 7894

<210> 7
<211> 7893
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 7

ataggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgatggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gactatcacg cccaaacatt 7560

tacagccgcg gtgtcaaaaa ccgcgtggac gtggttaaca tccctgctgg gaggatcagc 7620

cgtaattatt ataattggct tggtgctggc tactattgtg gccatgtacg tgctgaccaa 7680

ccagaaacat aattgaatac agcagcaatt ggcaagctgc ttacatagaa ctcgcggcga 7740

ttggcatgcc gccttaaaat ttttatttta ttttttcttt cttttccgaa tcggattttg 7800

tttttaatat ttcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 7860

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 7893

<210> 8
<211> 7927
<212> DNA
<213> Artificial Sequence

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

<400> 8
taatacgact cactatagga tgggcggcgc atgagagaag cccagaccaa ttacctaccc 60

aaaatggaga aagttcacgt tgacatcgag gaagacagcc cattcctcag agctttgcag 120

cggagcttcc cgcagtttga ggtagaagcc aagcaggtca ctgataatga ccatgctaat 180

gccagagcgt tttcgcatct ggcttcaaaa ctgatcgaaa cggaggtgga cccatccgac 240

acgatccttg acattggaag tgcgcccgcc cgcagaatgt attctaagca caagtatcat 300

tgtatctgtc cgatgagatg tgcggaagat ccggacagat tgtataagta tgcaactaag 360

ctgaagaaaa actgtaagga aataactgat aaggaattgg acaagaaaat gaaggagctc 420

gccgccgtca tgagcgaccc tgacctggaa actgagacta tgtgcctcca cgacgacgag 480

tcgtgtcgct acgaagggca agtcgctgtt taccaggatg tatacgcggt tgacggaccg 540

acaagtctct atcaccaagc caataaggga gttagagtcg cctactggat aggctttgac 600

accacccctt ttatgtttaa gaacttggct ggagcatatc catcatactc taccaactgg 660

gccgacgaaa ccgtgttaac ggctcgtaac ataggcctat gcagctctga cgttatggag 720

cggtcacgta gagggatgtc cattcttaga aagaagtatt tgaaaccatc caacaatgtt 780

ctattctctg ttggctcgac catctaccac gagaagaggg acttactgag gagctggcac 840

ctgccgtctg tatttcactt acgtggcaag caaaattaca catgtcggtg tgagactata 900

gttagttgcg acgggtacgt cgttaaaaga atagctatca gtccaggcct gtatgggaag 960

ccttcaggct atgctgctac gatgcaccgc gagggattct tgtgctgcaa agtgacagac 1020

acattgaacg gggagagggt ctcttttccc gtgtgcacgt atgtgccagc tacattgtgt 1080

gaccaaatga ctggcatact ggcaacagat gtcagtgcgg acgacgcgca aaaactgctg 1140

gttgggctca accagcgtat agtcgtcaac ggtcgcaccc agagaaacac caataccatg 1200

aaaaattacc ttttgcccgt agtggcccag gcatttgcta ggtgggcaaa ggaatataag 1260

gaagatcaag aagatgaaag gccactagga ctacgagata gacagttagt catggggtgt 1320

tgttgggctt ttagaaggca caagataaca tctatttata agcgcccgga tacccaaacc 1380

atcatcaaag tgaacagcga tttccactca ttcgtgctgc ccaggatagg cagtaacaca 1440

ttggagatcg ggctgagaac aagaatcagg aaaatgttag aggagcacaa ggagccgtca 1500

cctctcatta ccgccgagga cgtacaagaa gctaagtgcg cagccgatga ggctaaggag 1560

gtgcgtgaag ccgaggagtt gcgcgcagct ctaccacctt tggcagctga tgttgaggag 1620

cccactctgg aagccgatgt cgacttgatg ttacaagagg ctggggccgg ctcagtggag 1680

acacctcgtg gcttgataaa ggttaccagc tacgctggcg aggacaagat cggctcttac 1740

gctgtgcttt ctccgcaggc tgtactcaag agtgaaaaat tatcttgcat ccaccctctc 1800

gctgaacaag tcatagtgat aacacactct ggccgaaaag ggcgttatgc cgtggaacca 1860

taccatggta aagtagtggt gccagaggga catgcaatac ccgtccagga ctttcaagct 1920

ctgagtgaaa gtgccaccat tgtgtacaac gaacgtgagt tcgtaaacag gtacctgcac 1980

catattgcca cacatggagg agcgctgaac actgatgaag aatattacaa aactgtcaag 2040

cccagcgagc acgacggcga atacctgtac gacatcgaca ggaaacagtg cgtcaagaaa 2100

gaactagtca ctgggctagg gctcacaggc gagctggtgg atcctccctt ccatgaattc 2160

gcctacgaga gtctgagaac acgaccagcc gctccttacc aagtaccaac cataggggtg 2220

tatggcgtgc caggatcagg caagtctggc atcattaaaa gcgcagtcac caaaaaagat 2280

ctagtggtga gcgccaagaa agaaaactgt gcagaaatta taagggacgt caagaaaatg 2340

aaagggctgg acgtcaatgc cagaactgtg gactcagtgc tcttgaatgg atgcaaacac 2400

cccgtagaga ccctgtatat tgacgaagct tttgcttgtc atgcaggtac tctcagagcg 2460

ctcatagcca ttataagacc taaaaaggca gtgctctgcg gggatcccaa acagtgcggt 2520

ttttttaaca tgatgtgcct gaaagtgcat tttaaccacg agatttgcac acaagtcttc 2580

cacaaaagca tctctcgccg ttgcactaaa tctgtgactt cggtcgtctc aaccttgttt 2640

tacgacaaaa aaatgagaac gacgaatccg aaagagacta agattgtgat tgacactacc 2700

ggcagtacca aacctaagca ggacgatctc attctcactt gtttcagagg gtgggtgaag 2760

cagttgcaaa tagattacaa aggcaacgaa ataatgacgg cagctgcctc tcaagggctg 2820

acccgtaaag gtgtgtatgc cgttcggtac aaggtgaatg aaaatcctct gtacgcaccc 2880

acctcagaac atgtgaacgt cctactgacc cgcacggagg accgcatcgt gtggaaaaca 2940

ctagccggcg acccatggat aaaaacactg actgccaagt accctgggaa tttcactgcc 3000

acgatagagg agtggcaagc agagcatgat gccatcatga ggcacatctt ggagagaccg 3060

gaccctaccg acgtcttcca gaataaggca aacgtgtgtt gggccaaggc tttagtgccg 3120

gtgctgaaga ccgctggcat agacatgacc actgaacaat ggaacactgt ggattatttt 3180

gaaacggaca aagctcactc agcagagata gtattgaacc aactatgcgt gaggttcttt 3240

ggactcgatc tggactccgg tctattttct gcacccactg ttccgttatc cattaggaat 3300

aatcactggg ataactcccc gtcgcctaac atgtacgggc tgaataaaga agtggtccgt 3360

cagctctctc gcaggtaccc acaactgcct cgggcagttg ccactggaag agtctatgac 3420

atgaacactg gtacactgcg caattatgat ccgcgcataa acctagtacc tgtaaacaga 3480

agactgcctc atgctttagt cctccaccat aatgaacacc cacagagtga cttttcttca 3540

ttcgtcagca aattgaaggg cagaactgtc ctggtggtcg gggaaaagtt gtccgtccca 3600

ggcaaaatgg ttgactggtt gtcagaccgg cctgaggcta ccttcagagc tcggctggat 3660

ttaggcatcc caggtgatgt gcccaaatat gacataatat ttgttaatgt gaggacccca 3720

tataaatacc atcactatca gcagtgtgaa gaccatgcca ttaagcttag catgttgacc 3780

aagaaagctt gtctgcatct gaatcccggc ggaacctgtg tcagcatagg ttatggttac 3840

gctgacaggg ccagcgaaag catcattggt gctatagcgc ggcagttcaa gttttcccgg 3900

gtatgcaaac cgaaatcctc acttgaagag acggaagttc tgtttgtatt cattgggtac 3960

gatcgcaagg cccgtacgca caatccttac aagctttcat caaccttgac caacatttat 4020

acaggttcca gactccacga agccggatgt gcaccctcat atcatgtggt gcgaggggat 4080

attgccacgg ccaccgaagg agtgattata aatgctgcta acagcaaagg acaacctggc 4140

ggaggggtgt gcggagcgct gtataagaaa ttcccggaaa gcttcgattt acagccgatc 4200

gaagtaggaa aagcgcgact ggtcaaaggt gcagctaaac atatcattca tgccgtagga 4260

ccaaacttca acaaagtttc ggaggttgaa ggtgacaaac agttggcaga ggcttatgag 4320

tccatcgcta agattgtcaa cgataacaat tacaagtcag tagcgattcc actgttgtcc 4380

accggcatct tttccgggaa caaagatcga ctaacccaat cattgaacca tttgctgaca 4440

gctttagaca ccactgatgc agatgtagcc atatactgca gggacaagaa atgggaaatg 4500

actctcaagg aagcagtggc taggagagaa gcagtggagg agatatgcat atccgacgac 4560

tcttcagtga cagaacctga tgcagagctg gtgagggtgc atccgaagag ttctttggct 4620

ggaaggaagg gctacagcac aagcgatggc aaaactttct catatttgga agggaccaag 4680

tttcaccagg cggccaagga tatagcagaa attaatgcca tgtggcccgt tgcaacggag 4740

gccaatgagc aggtatgcat gtatatcctc ggagaaagca tgagcagtat taggtcgaaa 4800

tgccccgtcg aagagtcgga agcctccaca ccacctagca cgctgccttg cttgtgcatc 4860

catgccatga ctccagaaag agtacagcgc ctaaaagcct cacgtccaga acaaattact 4920

gtgtgctcat cctttccatt gccgaagtat agaatcactg gtgtgcagaa gatccaatgc 4980

tcccagccta tattgttctc accgaaagtg cctgcgtata ttcatccaag gaagtatctc 5040

gtggaaacac caccggtaga cgagactccg gagccatcgg cagagaacca atccacagag 5100

gggacacctg aacaaccacc acttataacc gaggatgaga ccaggactag aacgcctgag 5160

ccgatcatca tcgaagagga agaagaggat agcataagtt tgctgtcaga tggcccgacc 5220

caccaggtgc tgcaagtcga ggcagacatt cacgggccgc cctctgtatc tagctcatcc 5280

tggtccattc ctcatgcatc cgactttgat gtggacagtt tatccatact tgacaccctg 5340

gagggagcta gcgtgaccag cggggcaacg tcagccgaga ctaactctta cttcgcaaag 5400

agtatggagt ttctggcgcg accggtgcct gcgcctcgaa cagtattcag gaaccctcca 5460

catcccgctc cgcgcacaag aacaccgtca cttgcaccca gcagggcctg ctcgagaacc 5520

agcctagttt ccaccccgcc aggcgtgaat agggtgatca ctagagagga gctcgaggcg 5580

cttaccccgt cacgcactcc tagcaggtcg gtctcgagaa ccagcctggt ctccaacccg 5640

ccaggcgtaa atagggtgat tacaagagag gagtttgagg cgttcgtagc acaacaacaa 5700

tgacggtttg atgcgggtgc atacatcttt tcctccgaca ccggtcaagg gcatttacaa 5760

caaaaatcag taaggcaaac ggtgctatcc gaagtggtgt tggagaggac cgaattggag 5820

atttcgtatg ccccgcgcct cgaccaagaa aaagaagaat tactacgcaa gaaattacag 5880

ttaaatccca cacctgctaa cagaagcaga taccagtcca ggaaggtgga gaacatgaaa 5940

gccataacag ctagacgtat tctgcaaggc ctagggcatt atttgaaggc agaaggaaaa 6000

gtggagtgct accgaaccct gcatcctgtt cctttgtatt catctagtgt gaaccgtgcc 6060

ttttcaagcc ccaaggtcgc agtggaagcc tgtaacgcca tgttgaaaga gaactttccg 6120

actgtggctt cttactgtat tattccagag tacgatgcct atttggacat ggttgacgga 6180

gcttcatgct gcttagacac tgccagtttt tgccctgcaa agctgcgcag ctttccaaag 6240

aaacactcct atttggaacc cacaatacga tcggcagtgc cttcagcgat ccagaacacg 6300

ctccagaacg tcctggcagc tgccacaaaa agaaattgca atgtcacgca aatgagagaa 6360

ttgcccgtat tggattcggc ggcctttaat gtggaatgct tcaagaaata tgcgtgtaat 6420

aatgaatatt gggaaacgtt taaagaaaac cccatcaggc ttactgaaga aaacgtggta 6480

aattacatta ccaaattaaa aggaccaaaa gctgctgctc tttttgcgaa gacacataat 6540

ttgaatatgt tgcaggacat accaatggac aggtttgtaa tggacttaaa gagagacgtg 6600

aaagtgactc caggaacaaa acatactgaa gaacggccca aggtacaggt gatccaggct 6660

gccgatccgc tagcaacagc gtatctgtgc ggaatccacc gagagctggt taggagatta 6720

aatgcggtcc tgcttccgaa cattcataca ctgtttgata tgtcggctga agactttgac 6780

gctattatag ccgagcactt ccagcctggg gattgtgttc tggaaactga catcgcgtcg 6840

tttgataaaa gtgaggacga cgccatggct ctgaccgcgt taatgattct ggaagactta 6900

ggtgtggacg cagagctgtt gacgctgatt gaggcggctt tcggcgaaat ttcatcaata 6960

catttgccca ctaaaactaa atttaaattc ggagccatga tgaaatctgg aatgttcctc 7020

acactgtttg tgaacacagt cattaacatt gtaatcgcaa gcagagtgtt gagagaacgg 7080

ctaaccggat caccatgtgc agcattcatt ggagatgaca atatcgtgaa aggagtcaaa 7140

tcggacaaat taatggcaga caggtgcgcc acctggttga atatggaagt caagattata 7200

gatgctgtgg tgggcgagaa agcgccttat ttctgtggag ggtttatttt gtgtgactcc 7260

gtgaccggca cagcgtgccg tgtggcagac cccctaaaaa ggctgtttaa gcttggcaaa 7320

cctctggcag cagacgatga acatgatgat gacaggagaa gggcattgca tgaagagtca 7380

acacgctgga accgagtggg tattctttca gagctgtgca aggcagtaga atcaaggtat 7440

gaaaccgtag gaacttccat catagttatg gccatgacta ctctagctag cagtgttaaa 7500

tcattcagct acctgagagg ggcccctata actctctacg gctaacctga atggactacg 7560

actatcacgc ccaaacattt acagccgcgg tgtcaaaaac cgcgtggacg tggttaacat 7620

ccctgctggg aggatcagcc gtaattatta taattggctt ggtgctggct actattgtgg 7680

ccatgtacgt gctgaccaac cagaaacata attgaataca gcagcaattg gcaagctgct 7740

tacatagaac tcgcggcgat tggcatgccg ccttaaaatt tttattttat tttttctttt 7800

cttttccgaa tcggattttg tttttaatat ttcaaaaaaa aaaaaaaaaa aaaaaaaaaa 7860

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaatacgtag 7920

tttaaac 7927

<210> 9
<211> 7926
<212> DNA
<213> Artificial Sequence

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

<400> 9
taatacgact cactatagga taggcggcgc atgagagaag cccagaccaa ttacctaccc 60

aaaatggaga aagttcacgt tgacatcgag gaagacagcc cattcctcag agctttgcag 120

cggagcttcc cgcagtttga ggtagaagcc aagcaggtca ctgataatga ccatgctaat 180

gccagagcgt tttcgcatct ggcttcaaaa ctgatcgaaa cggaggtgga cccatccgac 240

acgatccttg acattggaag tgcgcccgcc cgcagaatgt attctaagca caagtatcat 300

tgtatctgtc cgatgagatg tgcggaagat ccggacagat tgtataagta tgcaactaag 360

ctgaagaaaa actgtaagga aataactgat aaggaattgg acaagaaaat gaaggagctc 420

gccgccgtca tgagcgaccc tgacctggaa actgagacta tgtgcctcca cgacgacgag 480

tcgtgtcgct acgaagggca agtcgctgtt taccaggatg tatacgcggt tgacggaccg 540

acaagtctct atcaccaagc caataaggga gttagagtcg cctactggat aggctttgac 600

accacccctt ttatgtttaa gaacttggct ggagcatatc catcatactc taccaactgg 660

gccgacgaaa ccgtgttaac ggctcgtaac ataggcctat gcagctctga cgttatggag 720

cggtcacgta gagggatgtc cattcttaga aagaagtatt tgaaaccatc caacaatgtt 780

ctattctctg ttggctcgac catctaccac gagaagaggg acttactgag gagctggcac 840

ctgccgtctg tatttcactt acgtggcaag caaaattaca catgtcggtg tgagactata 900

gttagttgcg acgggtacgt cgttaaaaga atagctatca gtccaggcct gtatgggaag 960

ccttcaggct atgctgctac gatgcaccgc gagggattct tgtgctgcaa agtgacagac 1020

acattgaacg gggagagggt ctcttttccc gtgtgcacgt atgtgccagc tacattgtgt 1080

gaccaaatga ctggcatact ggcaacagat gtcagtgcgg acgacgcgca aaaactgctg 1140

gttgggctca accagcgtat agtcgtcaac ggtcgcaccc agagaaacac caataccatg 1200

aaaaattacc ttttgcccgt agtggcccag gcatttgcta ggtgggcaaa ggaatataag 1260

gaagatcaag aagatgaaag gccactagga ctacgagata gacagttagt catggggtgt 1320

tgttgggctt ttagaaggca caagataaca tctatttata agcgcccgga tacccaaacc 1380

atcatcaaag tgaacagcga tttccactca ttcgtgctgc ccaggatagg cagtaacaca 1440

ttggagatcg ggctgagaac aagaatcagg aaaatgttag aggagcacaa ggagccgtca 1500

cctctcatta ccgccgagga cgtacaagaa gctaagtgcg cagccgatga ggctaaggag 1560

gtgcgtgaag ccgaggagtt gcgcgcagct ctaccacctt tggcagctga tgttgaggag 1620

cccactctgg aagccgatgt cgacttgatg ttacaagagg ctggggccgg ctcagtggag 1680

acacctcgtg gcttgataaa ggttaccagc tacgatggcg aggacaagat cggctcttac 1740

gctgtgcttt ctccgcaggc tgtactcaag agtgaaaaat tatcttgcat ccaccctctc 1800

gctgaacaag tcatagtgat aacacactct ggccgaaaag ggcgttatgc cgtggaacca 1860

taccatggta aagtagtggt gccagaggga catgcaatac ccgtccagga ctttcaagct 1920

ctgagtgaaa gtgccaccat tgtgtacaac gaacgtgagt tcgtaaacag gtacctgcac 1980

catattgcca cacatggagg agcgctgaac actgatgaag aatattacaa aactgtcaag 2040

cccagcgagc acgacggcga atacctgtac gacatcgaca ggaaacagtg cgtcaagaaa 2100

gaactagtca ctgggctagg gctcacaggc gagctggtgg atcctccctt ccatgaattc 2160

gcctacgaga gtctgagaac acgaccagcc gctccttacc aagtaccaac cataggggtg 2220

tatggcgtgc caggatcagg caagtctggc atcattaaaa gcgcagtcac caaaaaagat 2280

ctagtggtga gcgccaagaa agaaaactgt gcagaaatta taagggacgt caagaaaatg 2340

aaagggctgg acgtcaatgc cagaactgtg gactcagtgc tcttgaatgg atgcaaacac 2400

cccgtagaga ccctgtatat tgacgaagct tttgcttgtc atgcaggtac tctcagagcg 2460

ctcatagcca ttataagacc taaaaaggca gtgctctgcg gggatcccaa acagtgcggt 2520

ttttttaaca tgatgtgcct gaaagtgcat tttaaccacg agatttgcac acaagtcttc 2580

cacaaaagca tctctcgccg ttgcactaaa tctgtgactt cggtcgtctc aaccttgttt 2640

tacgacaaaa aaatgagaac gacgaatccg aaagagacta agattgtgat tgacactacc 2700

ggcagtacca aacctaagca ggacgatctc attctcactt gtttcagagg gtgggtgaag 2760

cagttgcaaa tagattacaa aggcaacgaa ataatgacgg cagctgcctc tcaagggctg 2820

acccgtaaag gtgtgtatgc cgttcggtac aaggtgaatg aaaatcctct gtacgcaccc 2880

acctcagaac atgtgaacgt cctactgacc cgcacggagg accgcatcgt gtggaaaaca 2940

ctagccggcg acccatggat aaaaacactg actgccaagt accctgggaa tttcactgcc 3000

acgatagagg agtggcaagc agagcatgat gccatcatga ggcacatctt ggagagaccg 3060

gaccctaccg acgtcttcca gaataaggca aacgtgtgtt gggccaaggc tttagtgccg 3120

gtgctgaaga ccgctggcat agacatgacc actgaacaat ggaacactgt ggattatttt 3180

gaaacggaca aagctcactc agcagagata gtattgaacc aactatgcgt gaggttcttt 3240

ggactcgatc tggactccgg tctattttct gcacccactg ttccgttatc cattaggaat 3300

aatcactggg ataactcccc gtcgcctaac atgtacgggc tgaataaaga agtggtccgt 3360

cagctctctc gcaggtaccc acaactgcct cgggcagttg ccactggaag agtctatgac 3420

atgaacactg gtacactgcg caattatgat ccgcgcataa acctagtacc tgtaaacaga 3480

agactgcctc atgctttagt cctccaccat aatgaacacc cacagagtga cttttcttca 3540

ttcgtcagca aattgaaggg cagaactgtc ctggtggtcg gggaaaagtt gtccgtccca 3600

ggcaaaatgg ttgactggtt gtcagaccgg cctgaggcta ccttcagagc tcggctggat 3660

ttaggcatcc caggtgatgt gcccaaatat gacataatat ttgttaatgt gaggacccca 3720

tataaatacc atcactatca gcagtgtgaa gaccatgcca ttaagcttag catgttgacc 3780

aagaaagctt gtctgcatct gaatcccggc ggaacctgtg tcagcatagg ttatggttac 3840

gctgacaggg ccagcgaaag catcattggt gctatagcgc ggcagttcaa gttttcccgg 3900

gtatgcaaac cgaaatcctc acttgaagag acggaagttc tgtttgtatt cattgggtac 3960

gatcgcaagg cccgtacgca caatccttac aagctttcat caaccttgac caacatttat 4020

acaggttcca gactccacga agccggatgt gcaccctcat atcatgtggt gcgaggggat 4080

attgccacgg ccaccgaagg agtgattata aatgctgcta acagcaaagg acaacctggc 4140

ggaggggtgt gcggagcgct gtataagaaa ttcccggaaa gcttcgattt acagccgatc 4200

gaagtaggaa aagcgcgact ggtcaaaggt gcagctaaac atatcattca tgccgtagga 4260

ccaaacttca acaaagtttc ggaggttgaa ggtgacaaac agttggcaga ggcttatgag 4320

tccatcgcta agattgtcaa cgataacaat tacaagtcag tagcgattcc actgttgtcc 4380

accggcatct tttccgggaa caaagatcga ctaacccaat cattgaacca tttgctgaca 4440

gctttagaca ccactgatgc agatgtagcc atatactgca gggacaagaa atgggaaatg 4500

actctcaagg aagcagtggc taggagagaa gcagtggagg agatatgcat atccgacgac 4560

tcttcagtga cagaacctga tgcagagctg gtgagggtgc atccgaagag ttctttggct 4620

ggaaggaagg gctacagcac aagcgatggc aaaactttct catatttgga agggaccaag 4680

tttcaccagg cggccaagga tatagcagaa attaatgcca tgtggcccgt tgcaacggag 4740

gccaatgagc aggtatgcat gtatatcctc ggagaaagca tgagcagtat taggtcgaaa 4800

tgccccgtcg aagagtcgga agcctccaca ccacctagca cgctgccttg cttgtgcatc 4860

catgccatga ctccagaaag agtacagcgc ctaaaagcct cacgtccaga acaaattact 4920

gtgtgctcat cctttccatt gccgaagtat agaatcactg gtgtgcagaa gatccaatgc 4980

tcccagccta tattgttctc accgaaagtg cctgcgtata ttcatccaag gaagtatctc 5040

gtggaaacac caccggtaga cgagactccg gagccatcgg cagagaacca atccacagag 5100

gggacacctg aacaaccacc acttataacc gaggatgaga ccaggactag aacgcctgag 5160

ccgatcatca tcgaagagga agaagaggat agcataagtt tgctgtcaga tggcccgacc 5220

caccaggtgc tgcaagtcga ggcagacatt cacgggccgc cctctgtatc tagctcatcc 5280

tggtccattc ctcatgcatc cgactttgat gtggacagtt tatccatact tgacaccctg 5340

gagggagcta gcgtgaccag cggggcaacg tcagccgaga ctaactctta cttcgcaaag 5400

agtatggagt ttctggcgcg accggtgcct gcgcctcgaa cagtattcag gaaccctcca 5460

catcccgctc cgcgcacaag aacaccgtca cttgcaccca gcagggcctg ctcgagaacc 5520

agcctagttt ccaccccgcc aggcgtgaat agggtgatca ctagagagga gctcgaggcg 5580

cttaccccgt cacgcactcc tagcaggtcg gtctcgagaa ccagcctggt ctccaacccg 5640

ccaggcgtaa atagggtgat tacaagagag gagtttgagg cgttcgtagc acaacaacaa 5700

tgacggtttg atgcgggtgc atacatcttt tcctccgaca ccggtcaagg gcatttacaa 5760

caaaaatcag taaggcaaac ggtgctatcc gaagtggtgt tggagaggac cgaattggag 5820

atttcgtatg ccccgcgcct cgaccaagaa aaagaagaat tactacgcaa gaaattacag 5880

ttaaatccca cacctgctaa cagaagcaga taccagtcca ggaaggtgga gaacatgaaa 5940

gccataacag ctagacgtat tctgcaaggc ctagggcatt atttgaaggc agaaggaaaa 6000

gtggagtgct accgaaccct gcatcctgtt cctttgtatt catctagtgt gaaccgtgcc 6060

ttttcaagcc ccaaggtcgc agtggaagcc tgtaacgcca tgttgaaaga gaactttccg 6120

actgtggctt cttactgtat tattccagag tacgatgcct atttggacat ggttgacgga 6180

gcttcatgct gcttagacac tgccagtttt tgccctgcaa agctgcgcag ctttccaaag 6240

aaacactcct atttggaacc cacaatacga tcggcagtgc cttcagcgat ccagaacacg 6300

ctccagaacg tcctggcagc tgccacaaaa agaaattgca atgtcacgca aatgagagaa 6360

ttgcccgtat tggattcggc ggcctttaat gtggaatgct tcaagaaata tgcgtgtaat 6420

aatgaatatt gggaaacgtt taaagaaaac cccatcaggc ttactgaaga aaacgtggta 6480

aattacatta ccaaattaaa aggaccaaaa gctgctgctc tttttgcgaa gacacataat 6540

ttgaatatgt tgcaggacat accaatggac aggtttgtaa tggacttaaa gagagacgtg 6600

aaagtgactc caggaacaaa acatactgaa gaacggccca aggtacaggt gatccaggct 6660

gccgatccgc tagcaacagc gtatctgtgc ggaatccacc gagagctggt taggagatta 6720

aatgcggtcc tgcttccgaa cattcataca ctgtttgata tgtcggctga agactttgac 6780

gctattatag ccgagcactt ccagcctggg gattgtgttc tggaaactga catcgcgtcg 6840

tttgataaaa gtgaggacga cgccatggct ctgaccgcgt taatgattct ggaagactta 6900

ggtgtggacg cagagctgtt gacgctgatt gaggcggctt tcggcgaaat ttcatcaata 6960

catttgccca ctaaaactaa atttaaattc ggagccatga tgaaatctgg aatgttcctc 7020

acactgtttg tgaacacagt cattaacatt gtaatcgcaa gcagagtgtt gagagaacgg 7080

ctaaccggat caccatgtgc agcattcatt ggagatgaca atatcgtgaa aggagtcaaa 7140

tcggacaaat taatggcaga caggtgcgcc acctggttga atatggaagt caagattata 7200

gatgctgtgg tgggcgagaa agcgccttat ttctgtggag ggtttatttt gtgtgactcc 7260

gtgaccggca cagcgtgccg tgtggcagac cccctaaaaa ggctgtttaa gcttggcaaa 7320

cctctggcag cagacgatga acatgatgat gacaggagaa gggcattgca tgaagagtca 7380

acacgctgga accgagtggg tattctttca gagctgtgca aggcagtaga atcaaggtat 7440

gaaaccgtag gaacttccat catagttatg gccatgacta ctctagctag cagtgttaaa 7500

tcattcagct acctgagagg ggcccctata actctctacg gctaacctga atggactacg 7560

actatcacgc ccaaacattt acagccgcgg tgtcaaaaac cgcgtggacg tggttaacat 7620

ccctgctggg aggatcagcc gtaattatta taattggctt ggtgctggct actattgtgg 7680

ccatgtacgt gctgaccaac cagaaacata attgaataca gcagcaattg gcaagctgct 7740

tacatagaac tcgcggcgat tggcatgccg ccttaaaatt tttattttat ttttcttttc 7800

ttttccgaat cggattttgt ttttaatatt tcaaaaaaaa aaaaaaaaaa aaaaaaaaaa 7860

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aatacgtagt 7920

ttaaac 7926

<210> 10
<211> 36519
<212> DNA
<213> Artificial Sequence

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

<400> 10
ccatcttcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagatga ggcacctgag agacctgccc 600

gatgagaaaa tcatcatcgc ttccgggaac gagattctgg aactggtggt aaatgccatg 660

atgggcgacg accctccgga gccccccacc ccatttgaga caccttcgct gcacgatttg 720

tatgatctgg aggtggatgt gcccgaggac gatcccaatg aggaggcggt aaatgatttt 780

tttagcgatg ccgcgctgct agctgccgag gaggcttcga gctctagctc agacagcgac 840

tcttcactgc ataccctag acccggcaga ggtgagaaaa agatccccga gcttaaaggg 900

gaagagatgg acttgcgctg ctatgaggaa tgcttgcccc cgagcgatga tgaggacgag 960

caggcgatcc agaacgcagc gagccaggga gtgcaagccg ccagcgagag ctttgcgctg 1020

gactgcccgc ctctgcccgg acacggctgt aagtcttgtg aatttcatcg catgaatact 1080

ggagataaag ctgtgttgtg tgcactttgc tatatgagag cttacaacca ttgtgtttac 1140

agtaagtgtg attaagttga actttagagg gaggcagaga gcagggtgac tgggcgatga 1200

ctggtttatt tatgtatata tgttctttat ataggtcccg tctctgacgc agatgatgag 1260

acccccacta caaagtccac ttcgtcaccc ccagaaattg gcacatctcc acctgagaat 1320

attgttagac cagttcctgt tagagccact gggaggagag cagctgtgga atgtttggat 1380

gacttgctac agggtggggt tgaacctttg gacttgtgta cccggaaacg ccccaggcac 1440

taagtgccac acatgtgtgt ttacttgagg tgatgtcagt atttataggg tgtggagtgc 1500

aataaaaaat gtgttgactt taagtgcgtg gtttatgact caggggtggg gactgtgagt 1560

atataagcag gtgcagacct gtgtggttag ctcagagcgg catggagatt tggacggtct 1620

tggaagactt tcacaagact agacagctgc tagagaacgc ctcgaacgga gtctcttacc 1680

tgtggagatt ctgcttcggt ggcgacctag ctaggctagt ctacagggcc aaacaggatt 1740

atagtgaaca atttgaggtt attttgagag agtgttctgg tctttttgac gctcttaact 1800

tgggccatca gtctcacttt aaccagagga tttcgagagc ccttgatttt actactcctg 1860

gcagaaccac tgcagcagta gccttttttg cttttattct tgacaaatgg agtcaagaaa 1920

cccatttcag cagggattac cagctggatt tcttagcagt agctttgtgg agaacatgga 1980

agtgccagcg cctgaatgca atctccggct acttgccggt acagccgcta gacactctga 2040

ggatcctgaa tctccaggag agtcccaggg cacgccaacg tcgccagcag cagcagcagg 2100

aggaggatca agaagagaac ccgagagccg gcctggaccc tccggcggag gaggaggagt 2160

agctgacctg tttcctgaac tgcgccgggt gctgactagg tcttcgagtg gtcgggagag 2220

ggggattaag cgggagaggc atgatgagac taatcacaga actgaactga ctgtgggtct 2280

gatgagtcgc aagcgcccag aaacagtgtg gtggcatgag gtgcagtcga ctggcacaga 2340

tgaggtgtcg gtgatgcatg agaggttttc tctagaacaa gtcaagactt gttggttaga 2400

gcctgaggat gattgggagg tagccatcag gaattatgcc aagctggctc tgaggccaga 2460

caagaagtac aagattacta agctgataaa tatcagaaat gcctgctaca tctcagggaa 2520

tggggctgaa gtggagatct gtctccagga aagggtggct ttcagatgct gcatgatgaa 2580

tatgtacccg ggagtggtgg gcatggatgg ggttaccttt atgaacatga ggttcagggg 2640

agatgggtat aatggcacgg tctttatggc caataccaag ctgacagtcc atggctgctc 2700

cttctttggg tttaataaca cctgcatcga ggcctggggt caggtcggtg tgaggggctg 2760

cagtttttca gccaactgga tgggggtcgt gggcaggacc aagagtatgc tgtccgtgaa 2820

gaaatgcttg tttgagaggt gccacctggg ggtgatgagc gagggcgaag ccagaatccg 2880

ccactgcgcc tctaccgaga cgggctgctt tgtgctgtgc aagggcaatg ctaagatcaa 2940

gcataatatg atctgtggag cctcggacga gcgcggctac cagatgctga cctgcgccgg 3000

cgggaacagc catatgctgg ccaccgtaca tgtggcttcc catgctcgca agccctggcc 3060

cgagttcgag cacaatgtca tgaccaggtg caatatgcat ctggggtccc gccgaggcat 3120

gttcatgccc taccagtgca acctgaatta tgtgaaggtg ctgctggagc ccgatgccat 3180

gtccagagtg agcctgacgg gggtgtttga catgaatgtg gaggtgtgga agattctgag 3240

atatgatgaa tccaagacca ggtgccgagc ctgcgagtgc ggagggaagc atgccaggtt 3300

ccagcccgtg tgtgtggatg tgacggagga cctgcgaccc gatcatttgg tgttgccctg 3360

caccgggacg gagttcggtt ccagcgggga agaatctgac tagagtgagt agtgttctgg 3420

ggcgggggag gacctgcatg agggccagaa taactgaaat ctgtgctttt ctgtgtgttg 3480

cagcagcatg agcggaagcg gctcctttga gggaggggta ttcagccctt atctgacggg 3540

gcgtctcccc tcctgggcgg gagtgcgtca gaatgtgatg ggatccacgg tggacggccg 3600

gcccgtgcag cccgcgaact cttcaaccct gacctatgca accctgagct cttcgtcgtt 3660

ggacgcagct gccgccgcag ctgctgcatc tgccgccagc gccgtgcgcg gaatggccat 3720

gggcgccggc tactacggca ctctggtggc caactcgagt tccaccaata atcccgccag 3780

cctgaacgag gagaagctgt tgctgctgat ggcccagctc gaggccttga cccagcgcct 3840

gggcgagctg acccagcagg tggctcagct gcaggagcag acgcgggccg cggttgccac 3900

ggtgaaatcc aaataaaaaa tgaatcaata aataaacgga gacggttgtt gattttaaca 3960

cagagtctga atctttattt gatttttcgc gcgcggtagg ccctggacca ccggtctcga 4020

tcattgagca cccggtggat cttttccagg acccggtaga ggtgggcttg gatgttgagg 4080

tacatgggca tgagcccgtc ccgggggtgg aggtagctcc attgcagggc ctcgtgctcg 4140

ggggtggtgt tgtaaatcac ccagtcatag caggggcgca gggcatggtg ttgcacaata 4200

tctttgagga ggagactgat ggccacgggc agccctttgg tgtaggtgtt tacaaatctg 4260

ttgagctggg agggatgcat gcgggggggag atgaggtgca tcttggcctg gatcttgaga 4320

ttggcgatgt taccgcccag atcccgcctg gggttcatgt tgtgcaggac caccagcacg 4380

gtgtatccgg tgcacttggg gaatttatca tgcaacttgg aagggaaggc gtgaaagaat 4440

ttggcgacgc ctttgtgccc gcccaggttt tccatgcact catccatgat gatggcgatg 4500

ggcccgtggg cggcggcctg ggcaaagacg tttcgggggt cggacacatc atagttgtgg 4560

tcctgggtga ggtcatcata ggccatttta atgaatttgg ggcggagggt gccggactgg 4620

gggacaaagg taccctcgat cccgggggcg tagttcccct cacagatctg catctcccag 4680

gctttgagct cggaggggggg gatcatgtcc acctgcgggg cgataaagaa cacggtttcc 4740

ggggcggggg agatgagctg ggccgaaagc aagttccgga gcagctggga cttgccgcag 4800

ccggtggggc cgtagatgac cccgatgacc ggctgcaggt ggtagttgag ggagagacag 4860

ctgccgtcct cccggaggag gggggccacc tcgttcatca tctcgcgcac gtgcatgttc 4920

tcgcgcacca gttccgccag gaggcgctct ccccccaggg ataggagctc ctggagcgag 4980

gcgaagtttt tcagcggctt gagtccgtcg gccatgggca ttttggagag ggtttgttgc 5040

aagagttcca ggcggtccca gagctcggtg atgtgctcta cggcatctcg atccagcaga 5100

cctcctcgtt tcgcgggttg ggacggctgc gggagtaggg caccagacga tgggcgtcca 5160

gcgcagccag ggtccggtcc ttccagggtc gcagcgtccg cgtcagggtg gtctccgtca 5220

cggtgaaggg gtgcgcgccg ggctgggcgc ttgcgagggt gcgcttcagg ctcatccggc 5280

tggtcgaaaa ccgctcccga tcggcgccct gcgcgtcggc caggtagcaa ttgaccatga 5340

gttcgtagtt gagcgcctcg gccgcgtggc ctttggcgcg gagcttacct ttggaagtct 5400

gcccgcaggc gggacagagg agggacttga gggcgtagag cttgggggcg aggaagacgg 5460

actcgggggc gtaggcgtcc gcgccgcagt gggcgcagac ggtctcgcac tccacgagcc 5520

aggtgaggtc gggctggtcg gggtcaaaaa ccagtttccc gccgttcttt ttgatgcgtt 5580

tcttaccttt ggtctccatg agctcgtgtc cccgctgggt gacaaagagg ctgtccgtgt 5640

ccccgtagac cgactttatg ggccggtcct cgagcggtgt gccgcggtcc tcctcgtaga 5700

ggaaccccgc ccactccgag acgaaagccc gggtccaggc cagcacgaag gaggccacgt 5760

gggacgggta gcggtcgttg tccaccagcg ggtccacctt ttccagggta tgcaaacaca 5820

tgtccccctc gtccacatcc aggaaggtga ttggcttgta agtgtaggcc acgtgaccgg 5880

gggtcccggc cgggggggta taaaagggtg cgggtccctg ctcgtcctca ctgtcttccg 5940

gatcgctgtc caggagcgcc agctgttggg gtaggtattc cctctcgaag gcgggcatga 6000

cctcggcact caggttgtca gtttctagaa acgaggagga tttgatattg acggtgccgg 6060

cggagatgcc tttcaagagc ccctcgtcca tctggtcaga aaagacgatc tttttgttgt 6120

cgagcttggt ggcgaaggag ccgtagaggg cgttggagag gagcttggcg atggagcgca 6180

tggtctggtt tttttccttg tcggcgcgct ccttggcggc gatgttgagc tgcacgtact 6240

cgcgcgccac gcacttccat tcggggaaga cggtggtcag ctcgtcgggc acgattctga 6300

cctgccagcc ccgattatgc agggtgatga ggtccacact ggtggccacc tcgccgcgca 6360

ggggctcatt agtccagcag aggcgtccgc ccttgcgcga gcagaagggg ggcaggggt 6420

ccagcatgac ctcgtcgggg gggtcggcat cgatggtgaa gatgccgggc aggaggtcgg 6480

ggtcaaagta gctgatggaa gtggccagat cgtccagggc agcttgccat tcgcgcacgg 6540

ccagcgcgcg ctcgtaggga ctgaggggcg tgccccaggg catgggatgg gtaagcgcgg 6600

aggcgtacat gccgcagatg tcgtagacgt agaggggctc ctcgaggatg ccgatgtagg 6660

tggggtagca gcgccccccg cggatgctgg cgcgcacgta gtcatacagc tcgtgcgagg 6720

gggcgaggag ccccgggccc aggttggtgc gactgggctt ttcggcgcgg tagacgatct 6780

ggcggaaaat ggcatgcgag ttggaggaga tggtgggcct ttggaagatg ttgaagtggg 6840

cgtggggcag tccgaccgag tcgcggatga agtgggcgta ggagtcttgc agcttggcga 6900

cgagctcggc ggtgactagg acgtccagag cgcagtagtc gagggtctcc tggatgatgt 6960

catacttgag ctgtcccttt tgtttccaca gctcgcggtt gagaaggaac tcttcgcggt 7020

ccttccagta ctcttcgagg gggaacccgt cctgatctgc acggtaagag cctagcatgt 7080

agaactggtt gacggccttg taggcgcagc agcccttctc cacggggagg gcgtaggcct 7140

gggcggcctt gcgcagggag gtgtgcgtga gggcgaaagt gtccctgacc atgaccttga 7200

ggaactggtg cttgaagtcg atatcgtcgc agccccccctg ctcccagagc tggaagtccg 7260

tgcgcttctt gtaggcgggg ttgggcaaag cgaaagtaac atcgttgaag aggatcttgc 7320

ccgcgcgggg cataaagttg cgagtgatgc ggaaaggttg gggcacctcg gcccggttgt 7380

tgatgacctg ggcggcgagc acgatctcgt cgaagccgtt gatgttgtgg cccacgatgt 7440

agagttccac gaatcgcgga cggcccttga cgtggggcag tttcttgagc tcctcgtagg 7500

tgagctcgtc ggggtcgctg agcccgtgct gctcgagcgc ccagtcggcg agatgggggt 7560

tggcgcggag gaaggaagtc cagagatcca cggccagggc ggtttgcaga cggtcccggt 7620

actgacggaa ctgctgcccg acggccattt tttcgggggt gacgcagtag aaggtgcggg 7680

ggtccccgtg ccagcgatcc catttgagct ggagggcgag atcgagggcg agctcgacga 7740

gccggtcgtc cccggagagt ttcatgacca gcatgaaggg gacgagctgc ttgccgaagg 7800

accccatcca ggtgtaggtt tccacatcgt aggtgaggaa gagcctttcg gtgcgaggat 7860

gcgagccgat ggggaagaac tggatctcct gccaccaatt ggaggaatgg ctgttgatgt 7920

gatggaagta gaaatgccga cggcgcgccg aacactcgtg cttgtgttta tacaagcggc 7980

cacagtgctc gcaacgctgc acgggatgca cgtgctgcac gagctgtacc tgagttcctt 8040

tgacgaggaa tttcagtggg aagtggagtc gtggcgcctg catctcgtgc tgtactacgt 8100

cgtggtggtc ggcctggccc tcttctgcct cgatggtggt catgctgacg agcccgcgcg 8160

ggaggcaggt ccagacctcg gcgcgagcgg gtcggagagc gaggacgagg gcgcgcaggc 8220

cggagctgtc cagggtcctg agacgctgcg gagtcaggtc agtgggcagc ggcggcgcgc 8280

ggttgacttg caggagtttt tccagggcgc gcgggaggtc cagatggtac ttgatctcca 8340

ccgcgccatt ggtggcgacg tcgatggctt gcagggtccc gtgcccctgg ggtgtgacca 8400

ccgtcccccg tttcttcttg ggcggctggg gcgacggggg cggtgcctct tccatggtta 8460

gaagcggcgg cgaggacgcg cgccgggcgg caggggcggc tcggggcccg gaggcagggg 8520

cggcaggggc acgtcggcgc cgcgcgcggg taggttctgg tactgcgccc ggagaagact 8580

ggcgtgagcg acgacgcgac ggttgacgtc ctggatctga cgcctctggg tgaaggccac 8640

gggacccgtg agtttgaacc tgaaagagag ttcgacagaa tcaatctcgg tatcgttgac 8700

ggcggcctgc cgcaggatct cttgcacgtc gcccgagttg tcctggtagg cgatctcggt 8760

catgaactgc tcgatctcct cctcttgaag gtctccgcgg ccggcgcgct ccacggtggc 8820

cgcgaggtcg ttggagatgc ggcccatgag ctgcgagaag gcgttcatgc ccgcctcgtt 8880

ccagacgcgg ctgtagacca cgacgccctc gggatcgcgg gcgcgcatga ccacctgggc 8940

gaggttgagc tccacgtggc gcgtgaagac cgcgtagttg cagaggcgct ggtagaggta 9000

gttgagcgtg gtggcgatgt gctcggtgac gaagaaatac atgatccagc ggcggagcgg 9060

catctcgctg acgtcgccca gcgcctccaa acgttccatg gcctcgtaaa agtccacggc 9120

gaagttgaaa aactgggagt tgcgcgccga gacggtcaac tcctcctcca gaagacggat 9180

gagctcggcg atggtggcgc gcacctcgcg ctcgaaggcc cccgggagtt cctccacttc 9240

ctcttcttcc tcctccacta acatctcttc tacttcctcc tcaggcggca gtggtggcgg 9300

gggaggggc ctgcgtcgcc ggcggcgcac gggcagacgg tcgatgaagc gctcgatggt 9360

ctcgccgcgc cggcgtcgca tggtctcggt gacggcgcgc ccgtcctcgc ggggccgcag 9420

cgtgaagacg ccgccgcgca tctccaggtg gccgggggg tccccgttgg gcagggagag 9480

ggcgctgacg atgcatctta tcaattgccc cgtagggact ccgcgcaagg acctgagcgt 9540

ctcgagatcc acgggatctg aaaaccgctg aacgaaggct tcgagccagt cgcagtcgca 9600

aggtaggctg agcacggttt cttctggcgg gtcatgttgg ttgggagcgg ggcgggcgat 9660

gctgctggtg atgaagttga aataggcggt tctgagacgg cggatggtgg cgaggagcac 9720

caggtctttg ggcccggctt gctggatgcg cagacggtcg gccatgcccc aggcgtggtc 9780

ctgacacctg gccaggtcct tgtagtagtc ctgcatgagc cgctccacgg gcacctcctc 9840

ctcgcccgcg cggccgtgca tgcgcgtgag cccgaagccg cgctggggct ggacgagcgc 9900

caggtcggcg acgacgcgct cggcgaggat ggcttgctgg atctgggtga gggtggtctg 9960

gaagtcatca aagtcgacga agcggtggta ggctccggtg ttgatggtgt aggagcagtt 10020

ggccatgacg gaccagttga cggtctggtg gcccggacgc acgagctcgt ggtacttgag 10080

gcgcgagtag gcgcgcgtgt cgaagatgta gtcgttgcag gtgcgcacca ggtactggta 10140

gccgatgagg aagtgcggcg gcggctggcg gtagagcggc catcgctcgg tggcgggggc 10200

gccgggcgcg aggtcctcga gcatggtgcg gtggtagccg tagatgtacc tggacatcca 10260

ggtgatgccg gcggcggtgg tggaggcgcg cgggaactcg cggacgcggt tccagatgtt 10320

gcgcagcggc aggaagtagt tcatggtggg cacggtctgg cccgtgaggc gcgcgcagtc 10380

gtggatgctc tatacgggca aaaacgaaag cggtcagcgg ctcgactccg tggcctggag 10440

gctaagcgaa cgggttgggc tgcgcgtgta ccccggttcg aatctcgaat caggctggag 10500

ccgcagctaa cgtggtattg gcactcccgt ctcgacccaa gcctgcacca accctccagg 10560

atacggaggc gggtcgtttt gcaacttttt tttggaggcc ggatgagact agtaagcgcg 10620

gaaagcggcc gaccgcgatg gctcgctgcc gtagtctgga gaagaatcgc cagggttgcg 10680

ttgcggtgtg ccccggttcg aggccggccg gattccgcgg ctaacgaggg cgtggctgcc 10740

ccgtcgtttc caagacccca tagccagccg acttctccag ttacggagcg agcccctctt 10800

ttgttttgtt tgtttttgcc agatgcatcc cgtactgcgg cagatgcgcc cccaccaccc 10860

tccaccgcaa caacagcccc ctccacagcc ggcgcttctg cccccgcccc agcagcaact 10920

tccagccacg accgccgcgg ccgccgtgag cggggctgga cagagttatg atcaccagct 10980

ggccttggaa gagggcgagg ggctggcgcg cctgggggcg tcgtcgccgg agcggcaccc 11040

gcgcgtgcag atgaaaaggg acgctcgcga ggcctacgtg cccaagcaga acctgttcag 11100

agacaggagc ggcgaggagc ccgaggagat gcgcgcggcc cggttccacg cggggcggga 11160

gctgcggcgc ggcctggacc gaaagagggt gctgagggac gaggatttcg aggcggacga 11220

gctgacgggg atcagccccg cgcgcgcgca cgtggccgcg gccaacctgg tcacggcgta 11280

cgagcagacc gtgaaggagg agagcaactt ccaaaaatcc ttcaacaacc acgtgcgcac 11340

cctgatcgcg cgcgaggagg tgaccctggg cctgatgcac ctgtgggacc tgctggaggc 11400

catcgtgcag aaccccacca gcaagccgct gacggcgcag ctgttcctgg tggtgcagca 11460

tagtcgggac aacgaagcgt tcagggaggc gctgctgaat atcaccgagc ccgagggccg 11520

ctggctcctg gacctggtga acattctgca gagcatcgtg gtgcaggagc gcgggctgcc 11580

gctgtccgag aagctggcgg ccatcaactt ctcggtgctg agtttgggca agtactacgc 11640

taggaagatc tacaagaccc cgtacgtgcc catagacaag gaggtgaaga tcgacgggtt 11700

ttacatgcgc atgaccctga aagtgctgac cctgagcgac gatctggggg tgtaccgcaa 11760

cgacaggatg caccgtgcgg tgagcgccag caggcggcgc gagctgagcg accaggagct 11820

gatgcatagt ctgcagcggg ccctgaccgg ggccgggacc gaggggggaga gctactttga 11880

catgggcgcg gacctgcact ggcagcccag ccgccgggcc ttggaggcgg cggcaggacc 11940

ctacgtagaa gaggtggacg atgaggtgga cgaggagggc gagtacctgg aagactgatg 12000

gcgcgaccgt atttttgcta gatgcaacaa caacagccac ctcctgatcc cgcgatgcgg 12060

gcggcgctgc agagccagcc gtccggcatt aactcctcgg acgattggac ccaggccatg 12120

caacgcatca tggcgctgac gacccgcaac cccgaagcct ttagacagca gccccaggcc 12180

aaccggctct cggccatcct ggaggccgtg gtgccctcgc gctccaaccc cacgcacgag 12240

aaggtcctgg ccatcgtgaa cgcgctggtg gagaacaagg ccatccgcgg cgacgaggcc 12300

ggcctggtgt acaacgcgct gctggagcgc gtggcccgct acaacagcac caacgtgcag 12360

accaacctgg accgcatggt gaccgacgtg cgcgaggccg tggcccagcg cgagcggttc 12420

caccgcgagt ccaacctggg atccatggtg gcgctgaacg ccttcctcag cacccagccc 12480

gccaacgtgc cccggggcca ggaggactac accaacttca tcagcgccct gcgcctgatg 12540

gtgaccgagg tgccccagag cgaggtgtac cagtccgggc cggactactt cttccagacc 12600

agtcgccagg gcttgcagac cgtgaacctg agccaggctt tcaagaactt gcagggcctg 12660

tggggcgtgc aggccccggt cggggaccgc gcgacggtgt cgagcctgct gacgccgaac 12720

tcgcgcctgc tgctgctgct ggtggccccc ttcacggaca gcggcagcat caaccgcaac 12780

tcgtacctgg gctacctgat taacctgtac cgcgaggcca tcggccaggc gcacgtggac 12840

gagcagacct accaggagat cacccacgtg agccgcgccc tgggccagga cgacccgggc 12900

aacctggaag ccaccctgaa ctttttgctg accaaccggt cgcagaagat cccgccccag 12960

tacgcgctca gcaccgagga ggagcgcatc ctgcgttacg tgcagcagag cgtgggcctg 13020

ttcctgatgc aggaggggggc cacccccagc gccgcgctcg acatgaccgc gcgcaacatg 13080

gagcccagca tgtacgccag caaccgcccg ttcatcaata aactgatgga ctacttgcat 13140

cgggcggccg ccatgaactc tgactatttc accaacgcca tcctgaatcc ccactggctc 13200

ccgccgccgg ggttctacac gggcgagtac gacatgcccg accccaatga cgggttcctg 13260

tgggacgatg tggacagcag cgtgttctcc ccccgaccgg gtgctaacga gcgccccttg 13320

tggaagaagg aaggcagcga ccgacgcccg tcctcggcgc tgtccggccg cgagggtgct 13380

gccgcggcgg tgcccgaggc cgccagtcct ttcccgagct tgcccttctc gctgaacagt 13440

atccgcagca gcgagctggg caggatcacg cgcccgcgct tgctgggcga agaggagtac 13500

ttgaatgact cgctgttgag acccgagcgg gagaagaact tccccaataa cgggatagaa 13560

agcctggtgg acaagatgag ccgctggaag acgtatgcgc aggagcacag ggacgatccc 13620

cgggcgtcgc agggggccac gagccggggc agcgccgccc gtaaacgccg gtggcacgac 13680

aggcagcggg gacagatgtg ggacgatgag gactccgccg acgacagcag cgtgttggac 13740

ttgggtggga gtggtaaccc gttcgctcac ctgcgccccc gtatcgggcg catgatgtaa 13800

gagaaaccga aaataaatga tactcaccaa ggccatggcg accagcgtgc gttcgtttct 13860

tctctgttgt tgttgtatct agtatgatga ggcgtgcgta cccggagggt cctcctccct 13920

cgtacgagag cgtgatgcag caggcgatgg cggcggcggc gatgcagccc ccgctggagg 13980

ctccttacgt gcccccgcgg tacctggcgc ctacggaggg gcggaacagc attcgttact 14040

cggagctggc acccttgtac gataccaccc ggttgtacct ggtggacaac aagtcggcgg 14100

acatcgcctc gctgaactac cagaacgacc acagcaactt cctgaccacc gtggtgcaga 14160

acaatgactt cacccccacg gaggccagca cccagaccat caactttgac gagcgctcgc 14220

ggtggggcgg ccagctgaaa accatcatgc acaccaacat gcccaacgtg aacgagttca 14280

tgtacagcaa caagttcaag gcgcgggtga tggtctcccg caagaccccc aatggggtga 14340

cagtgacaga ggattatgat ggtagtcagg atgagctgaa gtatgaatgg gtggaatttg 14400

agctgcccga aggcaacttc tcggtgacca tgaccatcga cctgatgaac aacgccatca 14460

tcgacaatta cttggcggtg gggcggcaga acggggtgct ggagagcgac atcggcgtga 14520

agttcgacac taggaacttc aggctgggct gggaccccgt gaccgagctg gtcatgcccg 14580

gggtgtacac caacgaggct ttccatcccg atattgtctt gctgcccggc tgcggggtgg 14640

acttcaccga gagccgcctc agcaacctgc tgggcattcg caagaggcag cccttccagg 14700

aaggcttcca gatcatgtac gaggatctgg agggggggcaa catccccgcg ctcctggatg 14760

tcgacgccta tgagaaaagc aaggaggatg cagcagctga agcaactgca gccgtagcta 14820

ccgcctctac cgaggtcagg ggcgataatt ttgcaagcgc cgcagcagtg gcagcggccg 14880

aggcggctga aaccgaaagt aagatagtca ttcagccggt ggagaaggat agcaagaaca 14940

ggagctacaa cgtactaccg gacaagataa acaccgccta ccgcagctgg tacctagcct 15000

acaactatgg cgaccccgag aagggcgtgc gctcctggac gctgctcacc acctcggacg 15060

tcacctgcgg cgtggagcaa gtctactggt cgctgcccga catgatgcaa gacccggtca 15120

ccttccgctc cacgcgtcaa gttagcaact acccggtggt gggcgccgag ctcctgcccg 15180

tctactccaa gagcttcttc aacgagcagg ccgtctactc gcagcagctg cgcgccttca 15240

cctcgcttac gcacgtcttc aaccgcttcc ccgagaacca gatcctcgtc cgcccgcccg 15300

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15360

cgctgcgcag cagtatccgg ggagtccagc gcgtgaccgt tactgacgcc agacgccgca 15420

cctgccccta cgtctacaag gccctgggca tagtcgcgcc gcgcgtcctc tcgagccgca 15480

ccttctaaat gtccattctc atctcgccca gtaataacac cggttggggc ctgcgcgcgc 15540

ccagcaagat gtacggaggc gctcgccaac gctccacgca acaccccgtg cgcgtgcgcg 15600

ggcacttccg cgctccctgg ggcgccctca agggccgcgt gcggtcgcgc accaccgtcg 15660

acgacgtgat cgaccaggtg gtggccgacg cgcgcaacta cacccccgcc gccgcgcccg 15720

tctccaccgt ggacgccgtc atcgacagcg tggtggccga cgcgcgccgg tacgcccgcg 15780

ccaagagccg gcggcggcgc atcgcccggc ggcaccggag cacccccgcc atgcgcgcgg 15840

cgcgagcctt gctgcgcagg gccaggcgca cgggacgcag ggccatgctc agggcggcca 15900

gacgcgcggc ttcaggcgcc agcgccggca ggacccggag acgcgcggcc acggcggcgg 15960

cagcggccat cgccagcatg tcccgcccgc ggcgagggaa cgtgtactgg gtgcgcgacg 16020

ccgccaccgg tgtgcgcgtg cccgtgcgca cccgcccccc tcgcacttga agatgttcac 16080

ttcgcgatgt tgatgtgtcc cagcggcgag gaggatgtcc aagcgcaaat tcaaggaaga 16140

gatgctccag gtcatcgcgc ctgagatcta cggccctgcg gtggtgaagg aggaaagaaa 16200

gccccgcaaa atcaagcggg tcaaaaagga caaaaaggaa gaagaaagtg atgtggacgg 16260

attggtggag tttgtgcgcg agttcgcccc ccggcggcgc gtgcagtggc gcgggcggaa 16320

ggtgcaaccg gtgctgagac ccggcaccac cgtggtcttc acgcccggcg agcgctccgg 16380

caccgcttcc aagcgctcct acgacgaggt gtacggggat gatgatattc tggagcaggc 16440

ggccgagcgc ctgggcgagt ttgcttacgg caagcgcagc cgttccgcac cgaaggaaga 16500

ggcggtgtcc atcccgctgg accacggcaa ccccacgccg agcctcaagc ccgtgacctt 16560

gcagcaggtg ctgccgaccg cggcgccgcg ccgggggttc aagcgcgagg gcgaggatct 16620

gtaccccacc atgcagctga tggtgcccaa gcgccagaag ctggaagacg tgctggagac 16680

catgaaggtg gacccggacg tgcagcccga ggtcaaggtg cggcccatca agcaggtggc 16740

cccgggcctg ggcgtgcaga ccgtggacat caagattccc acggagccca tggaaacgca 16800

gaccgagccc atgatcaagc ccagcaccag caccatggag gtgcagacgg atccctggat 16860

gccatcggct cctagtcgaa gaccccggcg caagtacggc gcggccagcc tgctgatgcc 16920

caactacgcg ctgcatcctt ccatcatccc cacgccgggc taccgcggca cgcgcttcta 16980

ccgcggtcat accagcagcc gccgccgcaa gaccaccact cgccgccgcc gtcgccgcac 17040

cgccgctgca accacccctg ccgccctggt gcggagagtg taccgccgcg gccgcgcacc 17100

tctgaccctg ccgcgcgcgc gctaccaccc gagcatcgcc atttaaactt tcgcctgctt 17160

tgcagatcaa tggccctcac atgccgcctt cgcgttccca ttacgggcta ccgaggaaga 17220

aaaccgcgcc gtagaaggct ggcggggaac gggatgcgtc gccaccacca ccggcggcgg 17280

cgcgccatca gcaagcggtt gggggggaggc ttcctgcccg cgctgatccc catcatcgcc 17340

gcggcgatcg gggcgatccc cggcattgct tccgtggcgg tgcaggcctc tcagcgccac 17400

tgagacacac ttggaaacat cttgtaataa accaatggac tctgacgctc ctggtcctgt 17460

gatgtgtttt cgtagacaga tggaagacat caatttttcg tccctggctc cgcgacacgg 17520

cacgcggccg ttcatgggca cctggagcga catcggcacc agccaactga acgggggcgc 17580

cttcaattgg agcagtctct ggagcgggct taagaatttc gggtccacgc ttaaaacctа 17640

tggcagcaag gcgtggaaca gcaccacagg gcaggcgctg agggataagc tgaaagagca 17700

gaacttccag cagaaggtgg tcgatgggct cgcctcgggc atcaacgggg tggtggacct 17760

ggccaaccag gccgtgcagc ggcagatcaa cagccgcctg gacccggtgc cgcccgccgg 17820

ctccgtggag atgccgcagg tggaggagga gctgcctccc ctggacaagc ggggcgagaa 17880

gcgaccccgc cccgatgcgg aggagacgct gctgacgcac acggacgagc cgcccccgta 17940

cgaggaggcg gtgaaactgg gtctgcccac cacgcggccc atcgcgcccc tggccaccgg 18000

ggtgctgaaa cccgaaaagc ccgcgaccct ggacttgcct cctccccagc cttcccgccc 18060

ctctacagtg gctaagcccc tgccgccggt ggccgtggcc cgcgcgcgac ccgggggcac 18120

cgcccgccct catgcgaact ggcagagcac tctgaacagc atcgtgggtc tgggagtgca 18180

gagtgtgaag cgccgccgct gctattaaac ctaccgtagc gcttaacttg cttgtctgtg 18240

tgtgtatgta ttatgtcgcc gccgccgctg tccaccagaa ggaggagtga agaggcgcgt 18300

cgccgagttg caagatggcc accccatcga tgctgcccca gtgggcgtac atgcacatcg 18360

ccggacagga cgcttcggag tacctgagtc cgggtctggt gcagtttgcc cgcgccacag 18420

acacctactt cagtctgggg aacaagttta ggaaccccac ggtggcgccc acgcacgatg 18480

tgaccaccga ccgcagccag cggctgacgc tgcgcttcgt gcccgtggac cgcgaggaca 18540

acacctactc gtacaaagtg cgctacacgc tggccgtggg cgacaaccgc gtgctggaca 18600

tggccagcac ctactttgac atccgcggcg tgctggatcg gggccctagc ttcaaaccct 18660

actccggcac cgcctacaac agtctggccc ccaagggagc acccaacact tgtcagtgga 18720

catataaagc cgatggtgaa actgccacag aaaaaaccta tacatatgga aatgcacccg 18780

tgcagggcat taacatcaca aaagatggta ttcaacttgg aactgacacc gatgatcagc 18840

caatctacgc agataaaacc tatcagcctg aacctcaagt gggtgatgct gaatggcatg 18900

acatcactgg tactgatgaa aagtatggag gcagagctct taagcctgat accaaaatga 18960

agccttgtta tggttctttt gccaagccta ctaataaaga aggaggtcag gcaaatgtga 19020

aaacaggaac aggcactact aaagaatatg acatagacat ggctttcttt gacaacagaa 19080

gtgcggctgc tgctggccta gctccagaaa ttgttttgta tactgaaaat gtggatttgg 19140

aaactccaga tacccatatt gtatacaaag caggcacaga tgacagcagc tcttctatta 19200

atttgggtca gcaagccatg cccaacagac ctaactacat tggtttcaga gacaacttta 19260

tcgggctcat gtactacaac agcactggca atatgggggt gctggccggt caggcttctc 19320

agctgaatgc tgtggttgac ttgcaagaca gaaacaccga gctgtcctac cagctcttgc 19380

ttgactctct gggtgacaga acccggtatt tcagtatgtg gaatcaggcg gtggacagct 19440

atgatcctga tgtgcgcatt attgaaaatc atggtgtgga ggatgaactt cccaactatt 19500

gtttccctct ggatgctgtt ggcagaacag atacttatca gggaattaag gctaatggaa 19560

ctgatcaaac cacatggacc aaagatgaca gtgtcaatga tgctaatgag ataggcaagg 19620

gtaatccatt cgccatggaa atcaacatcc aagccaacct gtggaggaac ttcctctacg 19680

ccaacgtggc cctgtacctg cccgactctt acaagtacac gccggccaat gttaccctgc 19740

ccaccaacac caacacctac gattacatga acggccgggt ggtggcgccc tcgctggtgg 19800

actcctacat caacatcggg gcgcgctggt cgctggatcc catggacaac gtgaacccct 19860

tcaaccacca ccgcaatgcg gggctgcgct accgctccat gctcctgggc aacgggcgct 19920

acgtgccctt ccacatccag gtgccccaga aatttttcgc catcaagagc ctcctgctcc 19980

tgcccgggtc ctacacctac gagtggaact tccgcaagga cgtcaacatg atcctgcaga 20040

gctccctcgg caacgacctg cgcacggacg gggcctccat ctccttcacc agcatcaacc 20100

tctacgccac cttcttcccc atggcgcaca acacggcctc cacgctcgag gccatgctgc 20160

gcaacgacac caacgaccag tccttcaacg actacctctc ggcggccaac atgctctacc 20220

ccatcccggc caacgccacc aacgtgccca tctccatccc ctcgcgcaac tgggccgcct 20280

tccgcggctg gtccttcacg cgtctcaaga ccaaggagac gccctcgctg ggctccgggt 20340

tcgaccccta cttcgtctac tcgggctcca tcccctacct cgacggcacc ttctacctca 20400

accacacctt caagaaggtc tccatcacct tcgactcctc cgtcagctgg cccggcaacg 20460

accggctcct gacgcccaac gagttcgaaa tcaagcgcac cgtcgacggc gagggctaca 20520

acgtggccca gtgcaacatg accaaggact ggttcctggt ccagatgctg gcccactaca 20580

acatcggcta ccagggcttc tacgtgcccg agggctacaa ggaccgcatg tactccttct 20640

tccgcaactt ccagcccatg agccgccagg tggtggacga ggtcaactac aaggactacc 20700

aggccgtcac cctggcctac cagcacaaca actcgggctt cgtcggctac ctcgcgccca 20760

ccatgcgcca gggccagccc taccccgcca actaccccta cccgctcatc ggcaagagcg 20820

ccgtcaccag cgtcacccag aaaaagttcc tctgcgacag ggtcatgtgg cgcatccgct 20880

tctccagcaa cttcatgtcc atgggcgcgc tcaccgacct cggccagaac atgctctatg 20940

ccaactccgc ccacgcgcta gacatgaatt tcgaagtcga ccccatggat gagtccaccc 21000

ttctctatgt tgtcttcgaa gtcttcgacg tcgtccgagt gcaccagccc caccgcggcg 21060

tcatcgaggc cgtctacctg cgcaccccct tctcggccgg taacgccacc acctaagctc 21120

ttgcttcttg caagccatgg ccgcgggctc cggcgagcag gagctcaggg ccatcatccg 21180

cgacctgggc tgcgggccct acttcctggg caccttcgat aagcgcttcc cgggattcat 21240

ggccccgcac aagctggcct gcgccatcgt caacacggcc ggccgcgaga ccgggggcga 21300

gcactggctg gccttcgcct ggaacccgcg ctcgaacacc tgctacctct tcgacccctt 21360

cgggttctcg gacgagcgcc tcaagcagat ctaccagttc gagtacgagg gcctgctgcg 21420

ccgcagcgcc ctggccaccg aggaccgctg cgtcaccctg gaaaagtcca cccagaccgt 21480

gcagggtccg cgctcggccg cctgcgggct cttctgctgc atgttcctgc acgccttcgt 21540

gcactggccc gaccgcccca tggacaagaa ccccaccatg aacttgctga cgggggtgcc 21600

caacggcatg ctccagtcgc cccaggtgga acccaccctg cgccgcaacc aggaggcgct 21660

ctaccgcttc ctcaactccc actccgccta ctttcgctcc caccgcgcgc gcatcgagaa 21720

ggccaccgcc ttcgaccgca tgaatcaaga catgtaaacc gtgtgtgtat gttaaatgtc 21780

tttaataaac agcactttca tgttacacat gcatctgaga tgatttattt agaaatcgaa 21840

agggttctgc cgggtctcgg catggcccgc gggcagggac acgttgcgga actggtactt 21900

ggccagccac ttgaactcgg ggatcagcag tttgggcagc ggggtgtcgg ggaaggagtc 21960

ggtccacagc ttccgcgtca gttgcagggc gcccagcagg tcgggcgcgg agatcttgaa 22020

atcgcagttg ggacccgcgt tctgcgcgcg ggagttgcgg tacacggggt tgcagcactg 22080

gaacaccatc agggccgggt gcttcacgct cgccagcacc gtcgcgtcgg tgatgctctc 22140

cacgtcgagg tcctcggcgt tggccatccc gaaggggggtc atcttgcagg tctgccttcc 22200

catggtgggc acgcacccgg gcttgtggtt gcaatcgcag tgcaggggga tcagcatcat 22260

ctgggcctgg tcggcgttca tccccgggta catggccttc atgaaagcct ccaattgcct 22320

gaacgcctgc tgggccttgg ctccctcggt gaagaagacc ccgcaggact tgctagagaa 22380

ctggttggtg gcgcacccgg cgtcgtgcac gcagcagcgc gcgtcgttgt tggccagctg 22440

caccacgctg cgcccccagc ggttctgggt gatcttggcc cggtcggggt tctccttcag 22500

cgcgcgctgc ccgttctcgc tcgccacatc catctcgatc atgtgctcct tctggatcat 22560

ggtggtcccg tgcaggcacc gcagcttgcc ctcggcctcg gtgcacccgt gcagccacag 22620

cgcgcacccg gtgcactccc agttcttgtg ggcgatctgg gaatgcgcgt gcacgaagcc 22680

ctgcaggaag cggcccatca tggtggtcag ggtcttgttg ctagtgaagg tcagcggaat 22740

gccgcggtgc tcctcgttga tgtacaggtg gcagatgcgg cggtacacct cgccctgctc 22800

gggcatcagc tggaagttgg ctttcaggtc ggtctccacg cggtagcggt ccatcagcat 22860

agtcatgatt tccataccct tctcccaggc cgagacgatg ggcaggctca tagggttctt 22920

caccatcatc ttagcgctag cagccgcggc caggggggtcg ctctcgtcca gggtctcaaa 22980

gctccgcttg ccgtccttct cggtgatccg caccgggggg tagctgaagc ccacggccgc 23040

cagctcctcc tcggcctgtc tttcgtcctc gctgtcctgg ctgacgtcct gcaggaccac 23100

atgcttggtc ttgcggggtt tcttcttggg cggcagcggc ggcggagatg ttggagatgg 23160

cgaggggggag cgcgagttct cgctcaccac tactatctct tcctcttctt ggtccgaggc 23220

cacgcggcgg taggtatgtc tcttcggggg cagaggcgga ggcgacgggc tctcgccgcc 23280

gcgacttggc ggatggctgg cagagcccct tccgcgttcg ggggtgcgct cccggcggcg 23340

ctctgactga cttcctccgc ggccggccat tgtgttctcc tagggaggaa caacaagcat 23400

ggagactcag ccatcgccaa cctcgccatc tgcccccacc gccgacgaga agcagcagca 23460

gcagaatgaa agcttaaccg ccccgccgcc cagccccgcc acctccgacg cggccgtccc 23520

agacatgcaa gagatggagg aatccatcga gattgacctg ggctatgtga cgcccgcgga 23580

gcacgaggag gagctggcag tgcgcttttc acaagaagag atacaccaag aacagccaga 23640

gcaggaagca gagaatgagc agagtcaggc tgggctcgag catgacggcg actacctcca 23700

cctgagcggg ggggaggacg cgctcatcaa gcatctggcc cggcaggcca ccatcgtcaa 23760

ggatgcgctg ctcgaccgca ccgaggtgcc cctcagcgtg gaggagctca gccgcgccta 23820

cgagttgaac ctcttctcgc cgcgcgtgcc ccccaagcgc cagcccaatg gcacctgcga 23880

gcccaacccg cgcctcaact tctacccggt cttcgcggtg cccgaggccc tggccaccta 23940

ccacatcttt ttcaagaacc aaaagatccc cgtctcctgc cgcgccaacc gcacccgcgc 24000

cgacgccctt ttcaacctgg gtcccggcgc ccgcctacct gatatcgcct ccttggaaga 24060

ggttcccaag atcttcgagg gtctgggcag cgacgagact cgggccgcga acgctctgca 24120

aggagaagga ggagagcatg agcaccacag cgccctggtc gagttggaag gcgacaacgc 24180

gcggctggcg gtgctcaaac gcacggtcga gctgacccat ttcgcctacc cggctctgaa 24240

cctgcccccc aaagtcatga gcgcggtcat ggaccaggtg ctcatcaagc gcgcgtcgcc 24300

catctccgag gacgagggca tgcaagactc cgaggagggc aagcccgtgg tcagcgacga 24360

gcagctggcc cggtggctgg gtcctaatgc tagtccccag agtttggaag agcggcgcaa 24420

actcatgatg gccgtggtcc tggtgaccgt ggagctggag tgcctgcgcc gcttcttcgc 24480

cgacgcggag accctgcgca aggtcgagga gaacctgcac tacctcttca ggcacgggtt 24540

cgtgcgccag gcctgcaaga tctccaacgt ggagctgacc aacctggtct cctacatggg 24600

catcttgcac gagaaccgcc tggggcagaa cgtgctgcac accaccctgc gcggggaggc 24660

ccggcgcgac tacatccgcg actgcgtcta cctctacctc tgccacacct ggcagacggg 24720

catgggcgtg tggcagcagt gtctggagga gcagaacctg aaagagctct gcaagctcct 24780

gcagaagaac ctcaagggtc tgtggaccgg gttcgacgag cgcaccaccg cctcggacct 24840

ggccgacctc attttccccg agcgcctcag gctgacgctg cgcaacggcc tgcccgactt 24900

tatgagccaa agcatgttgc aaaactttcg ctctttcatc ctcgaacgct ccggaatcct 24960

gcccgccacc tgctccgcgc tgccctcgga cttcgtgccg ctgaccttcc gcgagtgccc 25020

cccgccgctg tggagccact gctacctgct gcgcctggcc aactacctgg cctaccactc 25080

ggacgtgatc gaggacgtca gcggcgaggg cctgctcgag tgccactgcc gctgcaacct 25140

ctgcacgccg caccgctccc tggcctgcaa cccccagctg ctgagcgaga cccagatcat 25200

cggcaccttc gagttgcaag ggcccagcga aggcgagggt tcagccgcca aggggggtct 25260

gaaactcacc ccggggctgt ggacctcggc ctacttgcgc aagttcgtgc ccgaggacta 25320

ccatcccttc gagatcaggt tctacgagga ccaatcccat ccgcccaagg ccgagctgtc 25380

ggcctgcgtc atcacccagg gggcgatcct ggcccaattg caagccatcc agaaatcccg 25440

ccaagaattc ttgctgaaaa agggccgcgg ggtctacctc gacccccaga ccggtgagga 25500

gctcaacccc ggcttccccc aggatgcccc gaggaaacaa gaagctgaaa gtggagctgc 25560

cgcccgtgga ggatttggag gaagactggg agaacagcag tcaggcagag gaggaggaga 25620

tggaggaaga ctgggacagc actcaggcag aggaggacag cctgcaagac agtctggagg 25680

aagacgagga ggaggcagag gaggaggtgg aagaagcagc cgccgccaga ccgtcgtcct 25740

cggcgggggа gaaagcaagc agcacggata ccatctccgc tccgggtcgg ggtcccgctc 25800

gaccacacag tagatgggac gagaccggac gattcccgaa ccccaccacc cagaccggta 25860

agaaggagcg gcagggatac aagtcctggc gggggcacaa aaacgccatc gtctcctgct 25920

tgcaggcctg cgggggcaac atctccttca cccggcgcta cctgctcttc caccgcgggg 25980

tgaactttcc ccgcaacatc ttgcattact accgtcacct ccacagcccc tactacttcc 26040

aagaagaggc agcagcagca gaaaaagacc agcagaaaac cagcagctag aaaatccaca 26100

gcggcggcag caggtggact gaggatcgcg gcgaacgagc cggcgcaaac ccgggagctg 26160

aggaaccgga tctttcccac cctctatgcc atcttccagc agagtcgggg gcaggagcag 26220

gaactgaaag tcaagaaccg ttctctgcgc tcgctcaccc gcagttgtct gtatcacaag 26280

agcgaagacc aacttcagcg cactctcgag gacgccgagg ctctcttcaa caagtactgc 26340

gcgctcactc ttaaagagta gcccgcgccc gcccagtcgc agaaaaaggc gggaattacg 26400

tcacctgtgc ccttcgccct agccgcctcc acccatcatc atgagcaaag agattcccac 26460

gccttacatg tggagctacc agccccagat gggcctggcc gccggtgccg cccaggacta 26520

ctccacccgc atgaattggc tcagcgccgg gcccgcgatg atctcacggg tgaatgacat 26580

ccgcgcccac cgaaaccaga tactcctaga acagtcagcg ctcaccgcca cgccccgcaa 26640

tcacctcaat ccgcgtaatt ggcccgccgc cctggtgtac caggaaattc cccagcccac 26700

gaccgtacta cttccgcgag acgcccaggc cgaagtccag ctgactaact caggtgtcca 26760

gctggcgggc ggcgccaccc tgtgtcgtca ccgccccgct cagggtataa agcggctggt 26820

gatccggggc agaggcacac agctcaacga cgaggtggtg agctcttcgc tgggtctgcg 26880

acctgacgga gtcttccaac tcgccggatc ggggagatct tccttcacgc ctcgtcaggc 26940

cgtcctgact ttggagagtt cgtcctcgca gccccgctcg ggtggcatcg gcactctcca 27000

gttcgtggag gagttcactc cctcggtcta cttcaacccc ttctccggct cccccggcca 27060

ctacccggac gagttcatcc cgaacttcga cgccatcagc gagtcggtgg acggctacga 27120

ttgaatgtcc catggtggcg cagctgacct agctcggctt cgacacctgg accactgccg 27180

ccgcttccgc tgcttcgctc gggatctcgc cgagtttgcc tactttgagc tgcccgagga 27240

gcaccctcag ggcccggccc acggagtgcg gatcgtcgtc gaaggggccc tcgactccca 27300

cctgcttcgg atcttcagcc agcgtccgat cctggtcgag cgcgagcaag gacagaccct 27360

tctgactctg tactgcatct gcaaccaccc cggcctgcat gaaagtcttt gttgtctgct 27420

gtgtactgag tataataaaa gctgagatca gcgactactc cggacttccg tgtgttcctg 27480

aatccatcaa ccagtctttg ttcttcaccg ggaacgagac cgagctccag ctccagtgta 27540

agccccacaa gaagtacctc acctggctgt tccagggctc cccgatcgcc gttgtcaacc 27600

actgcgacaa cgacggagtc ctgctgagcg gccctgccaa ccttactttt tccacccgca 27660

gaagcaagct ccagctcttc caacccttcc tccccgggac ctatcagtgc gtctcgggac 27720

cctgccatca caccttccac ctgatcccga ataccacagc gtcgctcccc gctactaaca 27780

accaaactaa cctccaccaa cgccaccgtc gcgacctttc tgaatctaat actaccaccc 27840

acaccggagg tgagctccga ggtcaaccaa cctctgggat ttactacggc ccctgggagg 27900

tggttgggtt aatagcgcta ggcctagttg cgggtgggct tttggttctc tgctacctat 27960

acctcccttg ctgttcgtac ttagtggtgc tgtgttgctg gtttaagaaa tggggaagat 28020

caccctagtg agctgcggtg cgctggtggc ggtgttgctt tcgattgtgg gactgggcgg 28080

tgcggctgta gtgaaggaga aggccgatcc ctgcttgcat ttcaatccca acaaatgcca 28140

gctgagtttt cagcccgatg gcaatcggtg cgcggtactg atcaagtgcg gatgggaatg 28200

cgagaacgtg agaatcgagt acaataacaa gactcggaac aatactctcg cgtccgtgtg 28260

gcagcccggg gaccccgagt ggtacaccgt ctctgtcccc ggtgctgacg gctccccgcg 28320

caccgtgaat aatactttca tttttgcgca catgtgcgac acggtcatgt ggatgagcaa 28380

gcagtacgat atgtggcccc ccacgaagga gaacatcgtg gtcttctcca tcgcttacag 28440

cctgtgcacg gcgctaatca ccgctatcgt gtgcctgagc attcacatgc tcatcgctat 28500

tcgccccaga aataatgccg aaaaagaaaa acagccataa cgtttttttt cacacctttt 28560

tcagaccatg gcctctgtta aatttttgct tttatttgcc agtctcattg ccgtcattca 28620

tggaatgagt aatgagaaaa ttactattta cactggcact aatcacacat tgaaaggtcc 28680

agaaaaagcc acagaagttt catggtattg ttattttaat gaatcagatg tatctactga 28740

actctgtgga aacaataaca aaaaaaatga gagcattact ctcatcaagt ttcaatgtgg 28800

atctgactta accctaatta acatcactag agactatgta ggtatgtatt atggaactac 28860

agcaggcatt tcggacatgg aattttatca agtttctgtg tctgaaccca ccacgcctag 28920

aatgaccaca accacaaaaa ctacacctgt taccactatg cagctcacta ccaataacat 28980

ttttgccatg cgtcaaatgg tcaacaatag cactcaaccc accccaccca gtgaggaaat 29040

tcccaaatcc atgattggca ttattgttgc tgtagtggtg tgcatgttga tcatcgcctt 29100

gtgcatggtg tactatgcct tctgctacag aaagcacaga ctgaacgaca agctggaaca 29160

cttactaagt gttgaatttt aatttttag aaccatgaag atcctaggcc ttttaatttt 29220

ttctatcatt acctctgctc tatgcaattc tgacaatgag gacgttactg tcgttgtcgg 29280

atcaaattat acactgaaag gtccagcgaa gggtatgctt tcgtggtatt gctattttgg 29340

atctgacact acagaaactg aattatgcaa tcttaagaat ggcaaaattc aaaattctaa 29400

aattaacaat tatatatgca atggtactga tctgatactc ctcaatatca cgaaatcata 29460

tgctggcagt tacacctgcc ctggagatga tgctgacagt atgatttttt acaaagtaac 29520

tgttgttgat cccactactc cacctccacc caccacaact actcacacca cacacacaga 29580

tcaaaccgca gcagaggagg cagcaaagtt agccttgcag gtccaagaca gttcatttgt 29640

tggcattacc cctacacctg atcagcggtg tccggggctg ctagtcagcg gcattgtcgg 29700

tgtgctttcg ggattagcag tcataatcat ctgcatgttc atttttgctt gctgctatag 29760

aaggctttac cgacaaaaat cagacccact gctgaacctc tatgtttaat tttttccaga 29820

gtcatgaagg cagttagcgc tctagttttt tgttctttga ttggcattgt tttttgcaat 29880

cctattccta aagttagctt tattaaagat gtgaatgtta ctgaggggggg caatgtgaca 29940

ctggtaggtg tagagggtgc tgaaaacacc acctggacaa aataccacct caatgggtgg 30000

aaagatattt gcaattggag tgtattagtt tatacatgtg agggagttaa tcttaccatt 30060

gtcaatgcca cctcagctca aaatggtaga attcaaggac aaagtgtcag tgtatctaat 30120

gggtatttta cccaacatac ttttatctat gacgttaaag tcataccact gcctacgcct 30180

agcccaccta gcactaccac acagacaacc cacactacac agacaaccac atacagtaca 30240

ttaaatcagc ctaccaccac tacagcagca gaggttgcca gctcgtctgg ggtccgagtg 30300

gcatttttga tgttggcccc atctagcagt cccactgcta gtaccaatga gcagactact 30360

gaatttttgt ccactgtcga gagccacacc acagctacct ccagtgcctt ctctagcacc 30420

gccaatctct cctcgctttc ctctacacca atcagtcccg ctactactcc tagccccgct 30480

cctcttccca ctcccctgaa gcaaacagac ggcggcatgc aatggcagat caccctgctc 30540

attgtgatcg ggttggtcat cctggccgtg ttgctctact acatcttctg ccgccgcatt 30600

cccaacgcgc accgcaagcc ggtctacaag cccatcattg tcgggcagcc ggagccgctt 30660

caggtggaag ggggtctaag gaatcttctc ttctctttta cagtatggtg attgaactat 30720

gattcctaga caattcttga tcactattct tatctgcctc ctccaagtct gtgccaccct 30780

cgctctggtg gccaacgcca gtccagactg tattgggccc ttcgcctcct acgtgctctt 30840

tgccttcacc acctgcatct gctgctgtag catagtctgc ctgcttatca ccttcttcca 30900

gttcattgac tggatctttg tgcgcatcgc ctacctgcgc caccaccccc agtaccgcga 30960

ccagcgagtg gcgcggctgc tcaggctcct ctgataagca tgcgggctct gctacttctc 31020

gcgcttctgc tgttagtgct cccccgtccc gtcgaccccc ggtcccccac ccagtccccc 31080

gaggaggtcc gcaaatgcaa attccaagaa ccctggaaat tcctcaaatg ctaccgccaa 31140

aaatcagaca tgcatcccag ctggatcatg atcattggga tcgtgaacat tctggcctgc 31200

accctcatct cctttgtgat ttacccctgc tttgactttg gttggaactc gccagaggcg 31260

ctctatctcc cgcctgaacc tgacacacca ccacagcaac ctcaggcaca cgcactacca 31320

ccactacagc ctaggccaca atacatgccc atattagact atgaggccga gccacagcga 31380

cccatgctcc ccgctattag ttacttcaat ctaaccggcg gagatgactg acccactggc 31440

caacaacaac gtcaacgacc ttctcctgga catggacggc cgcgcctcgg agcagcgact 31500

cgcccaactt cgcattcgcc agcagcagga gagagccgtc aaggagctgc aggatgcggt 31560

ggccatccac cagtgcaaga gaggcatctt ctgcctggtg aaacaggcca agatctccta 31620

cgaggtcact ccaaacgacc atcgcctctc ctacgagctc ctgcagcagc gccagaagtt 31680

cacctgcctg gtcggagtca accccatcgt catcacccag cagtctggcg ataccaaggg 31740

gtgcatccac tgctcctgcg actcccccga ctgcgtccac actctgatca agaccctctg 31800

cggcctccgc gacctcctcc ccatgaacta atcacccccct tatccagtga aataaagatc 31860

atattgatga tgattttaca gaaataaaaa ataatcattt gatttgaaat aaagatacaa 31920

tcatattgat gatttgagtt taacaaaaaa ataaagaatc acttacttga aatctgatac 31980

caggtctctg tccatgtttt ctgccaacac cacttcactc ccctcttccc agctctggta 32040

ctgcaggccc cggcgggctg caaacttcct ccacacgctg aaggggatgt caaattcctc 32100

ctgtccctca atcttcattt tatcttctat cagatgtcca aaaagcgcgt ccgggtggat 32160

gatgacttcg accccgtcta cccctacgat gcagacaacg caccgaccgt gcccttcatc 32220

aacccccccct tcgtctcttc agatggattc caagagaagc ccctgggggt gttgtccctg 32280

cgactggccg accccgtcac caccaagaac ggggaaatca ccctcaagct gggagagggg 32340

gtggacctcg attcctcggg aaaactcatc tccaacacgg ccaccaaggc cgccgcccct 32400

ctcagttttt ccaacaacac catttccctt aacatggatc acccctttta cactaaagat 32460

ggaaaattat ccttacaagt ttctccacca ttaaatatac tgagaacaag cattctaaac 32520

acactagctt taggttttgg atcaggttta ggactccgtg gctctgcctt ggcagtacag 32580

ttagtctctc cacttacatt tgatactgat ggaaacataa agcttacctt agacagaggt 32640

ttgcatgtta caacaggaga tgcaattgaa agcaacataa gctgggctaa aggtttaaaa 32700

tttgaagatg gagccatagc aaccaacatt ggaaatgggt tagagtttgg aagcagtagt 32760

acagaaacag gtgttgatga tgcttaccca atccaagtta aacttggatc tggccttagc 32820

tttgacagta caggagccat aatggctggt aacaaagaag acgataaact cactttgtgg 32880

acaacacctg atccatcacc aaactgtcaa atactcgcag aaaatgatgc aaaactaaca 32940

ctttgcttga ctaaatgtgg tagtcaaata ctggccactg tgtcagtctt agttgtagga 33000

agtggaaacc taaaccccat tactggcacc gtaagcagtg ctcaggtgtt tctacgtttt 33060

gatgcaaacg gtgttctttt aacagaacat tctacactaa aaaaatactg ggggtatagg 33120

cagggagata gcatagatgg cactccatat accaatgctg taggattcat gcccaattta 33180

aaagcttatc caaagtcaca aagttctact actaaaaata atatagtagg gcaagtatac 33240

atgaatggag atgtttcaaa acctatgctt ctcactataa ccctcaatgg tactgatgac 33300

agcaacagta catattcaat gtcattttca tacacctgga ctaatggaag ctatgttgga 33360

gcaacatttg gggctaactc ttataccttc tcatacatcg cccaagaatg aacactgtat 33420

cccaccctgc atgccaaccc ttcccacccc actctgtgga acaaactctg aaacacaaaa 33480

taaaataaag ttcaagtgtt ttattgattc aacagtttta caggattcga gcagttattt 33540

ttcctccacc ctcccaggac atggaataca ccaccctctc cccccgcaca gccttgaaca 33600

tctgaatgcc attggtgatg gacatgcttt tggtctccac gttccacaca gtttcagagc 33660

gagccagtct cgggtcggtc agggagatga aaccctccgg gcactcccgc atctgcacct 33720

cacagctcaa cagctgagga ttgtcctcgg tggtcgggat cacggttatc tggaagaagc 33780

agaagagcgg cggtgggaat catagtccgc gaacgggatc ggccggtggt gtcgcatcag 33840

gccccgcagc agtcgctgcc gccgccgctc cgtcaagctg ctgctcaggg ggtccgggtc 33900

cagggactcc ctcagcatga tgcccacggc cctcagcatc agtcgtctgg tgcggcgggc 33960

gcagcagcgc atgcggatct cgctcaggtc gctgcagtac gtgcaacaca gaaccaccag 34020

gttgttcaac agtccatagt tcaacacgct ccagccgaaa ctcatcgcgg gaaggatgct 34080

acccacgtgg ccgtcgtacc agatcctcag gtaaatcaag tggtgccccc tccagaacac 34140

gctgcccacg tacatgatct ccttgggcat gtggcggttc accacctccc ggtaccacat 34200

caccctctgg ttgaacatgc agccccggat gatcctgcgg aaccacaggg ccagcaccgc 34260

cccgcccgcc atgcagcgaa gagaccccgg gtcccggcaa tggcaatgga ggacccaccg 34320

ctcgtacccg tggatcatct gggagctgaa caagtctatg ttggcacagc acaggcatat 34380

gctcatgcat ctcttcagca ctctcaactc ctcgggggtc aaaaccatat cccagggcac 34440

ggggaactct tgcaggacag cgaaccccgc agaacagggc aatcctcgca cagaacttac 34500

attgtgcatg gacagggtat cgcaatcagg cagcaccggg tgatcctcca ccagagaagc 34560

gcgggtctcg gtctcctcac agcgtggtaa gggggccggc cgatacgggt gatggcggga 34620

cgcggctgat cgtgttcgcg accgtgtcat gatgcagttg ctttcggaca ttttcgtact 34680

tgctgtagca gaacctggtc cgggcgctgc acaccgatcg ccggcggcgg tctcggcgct 34740

tggaacgctc ggtgttgaaa ttgtaaaaca gccactctct cagaccgtgc agcagatcta 34800

gggcctcagg agtgatgaag atcccatcat gcctgatggc tctgatcaca tcgaccaccg 34860

tggaatgggc cagacccagc cagatgatgc aattttgttg ggtttcggtg acggcggggg 34920

agggaagaac aggaagaacc atgattaact tttaatccaa acggtctcgg agtacttcaa 34980

aatgaagatc gcggagatgg cacctctcgc ccccgctgtg ttggtggaaa ataacagcca 35040

ggtcaaaggt gatacggttc tcgagatgtt ccacggtggc ttccagcaaa gcctccacgc 35100

gcacatccag aaacaagaca atagcgaaag cgggagggtt ctctaattcc tcaatcatca 35160

tgttacactc ctgcaccatc cccagataat tttcattttt ccagccttga atgattcgaa 35220

ctagttcctg aggtaaatcc aagccagcca tgataaagag ctcgcgcaga gcgccctcca 35280

ccggcattct taagcacacc ctcataattc caagatattc tgctcctggt tcacctgcag 35340

cagattgaca agcggaatat caaaatctct gccgcgatcc ctgagctcct ccctcagcaa 35400

taactgtaag tactctttca tatcctctcc gaaattttta gccataggac caccaggaat 35460

aagattaggg caagccacag tacagataaa ccgaagtcct ccccagtgag cattgccaaa 35520

tgcaagactg ctataagcat gctggctaga cccggtgata tcttccagat aactggacag 35580

aaaatcgccc aggcaatttt taagaaaatc aacaaaagaa aaatcctcca ggtggacgtt 35640

tagagcctcg ggaacaacga tgaagtaaat gcaagcggtg cgttccagca tggttagtta 35700

gctgatctgt agaaaaaaca aaaatgaaca ttaaaccatg ctagcctggc gaacaggtgg 35760

gtaaatcgtt ctctccagca ccaggcaggc cacggggtct ccggcgcgac cctcgtaaaa 35820

attgtcgcta tgattgaaaa ccatcacaga gagacgttcc cggtggccgg cgtgaatgat 35880

tcgacaagat gaatacaccc ccggaacatt ggcgtccgcg agtgaaaaaa agcgcccgag 35940

gaagcaataa ggcactacaa tgctcagtct caagtccagc aaagcgatgc catgcggatg 36000

aagcacaaaa ttctcaggtg cgtacaaaat gtaattactc ccctcctgca caggcagcaa 36060

agcccccgat ccctccaggt acacatacaa agcctcagcg tccatagctt accgagcagc 36120

agcacacaac aggcgcaaga gtcagagaaa ggctgagctc taacctgtcc acccgctctc 36180

tgctcaatat atagcccaga tctacactga cgtaaaggcc aaagtctaaa aatacccgcc 36240

aaataatcac acacgcccag cacacgccca gaaaccggtg acacactcaa aaaaatacgc 36300

gcacttcctc aaacgcccaa aactgccgtc atttccgggt tcccacgcta cgtcatcaaa 36360

acacgacttt caaattccgt cgaccgttaa aaacgtcacc cgccccgccc ctaacggtcg 36420

cccgtctctc agccaatcag cgccccgcat ccccaaattc aaacacctca tttgcatatt 36480

aacgcgcaca aaaagtttga ggtatattat tgatgatgg 36519

<210> 11
<211> 31867
<212> DNA
<213> Artificial Sequence

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

<400> 11
ccatcttcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagtagg gataacaggg taatgacatt 600

gattattgac tagttgttaa tagtaatcaa ttacggggtc attagttcat agcccatata 660

tggagttccg cgttacataa cttacggtaa atggcccgcc tggctgaccg cccaacgacc 720

cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc 780

attgacgtca atgggtggag tatttacggt aaactgccca cttggcagta catcaagtgt 840

atcatatgcc aagtccgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt 900

atgcccagta catgacctta cgggactttc ctacttggca gtacatctac gtattagtca 960

tcgctattac catggtgatg cggttttggc agtacaccaa tgggcgtgga tagcggtttg 1020

actcacgggg atttccaagt ctccacccca ttgacgtcaa tgggagtttg ttttggcacc 1080

aaaatcaacg ggactttcca aaatgtcgta ataaccccgc cccgttgacg caaatgggcg 1140

gtaggcgtgt acggtgggag gtctatataa gcagagctcg tttagtgaac cgtcagatcg 1200

cctggaacgc catccacgct gttttgacct ccatagaaga cagcgatcgc gccaccatgg 1260

tgagcaaggg cgaggagctg ttcaccgggg tggtgcccat cctggtcgag ctggacggcg 1320

acgtaaacgg ccacaagttc agcgtgtccg gcgagggcga gggcgatgcc acctacggca 1380

agctgaccct gaagttcatc tgcaccaccg gcaagctgcc cgtgccctgg cccaccctcg 1440

tgaccaccct gacctacggc gtgcagtgct tcagccgcta ccccgaccac atgaagcagc 1500

acgacttctt caagtccgcc atgcccgaag gctacgtcca ggagcgcacc atcttcttca 1560

aggacgacgg caactacaag acccgcgccg aggtgaagtt cgagggcgac accctggtga 1620

accgcatcga gctgaagggc atcgacttca aggaggacgg caacatcctg gggcacaagc 1680

tggagtacaa ctacaacagc cacaacgtct atatcatggc cgacaagcag aagaacggca 1740

tcaaggtgaa cttcaagatc cgccacaaca tcgaggacgg cagcgtgcag ctcgccgacc 1800

actaccagca gaacaccccc atcggcgacg gccccgtgct gctgcccgac aaccactacc 1860

tgagcaccca gtccgccctg agcaaagacc ccaacgagaa gcgcgatcac atggtcctgc 1920

tggagttcgt gaccgccgcc gggatcactc tcggcatgga cgagctttac aagtagtgag 1980

tttaaactcc catttaaatg tgagggttaa tgcttcgagc agacatgata agatacattg 2040

atgagtttgg acaaaccaca actagaatgc agtgaaaaaa atgctttatt tgtgaaattt 2100

gtgatgctat tgctttattt gtaaccatta taagctgcaa taaacaagtt aacaacaaca 2160

attgcattca ttttatgttt caggttcagg gggagatgtg ggaggttttt taaagcaagt 2220

aaaacctcta caaatgtggt aaaataacta taacggtcct aaggtagcga gtgagtagtg 2280

ttctggggcg ggggaggacc tgcatgaggg ccagaataac tgaaatctgt gcttttctgt 2340

gtgttgcagc agcatgagcg gaagcggctc ctttgaggga ggggtattca gcccttatct 2400

gacggggcgt ctcccctcct gggcgggagt gcgtcagaat gtgatgggat ccacggtgga 2460

cggccggccc gtgcagcccg cgaactcttc aaccctgacc tatgcaaccc tgagctcttc 2520

gtcgttggac gcagctgccg ccgcagctgc tgcatctgcc gccagcgccg tgcgcggaat 2580

ggccatgggc gccggctact acggcactct ggtggccaac tcgagttcca ccaataatcc 2640

cgccagcctg aacgaggaga agctgttgct gctgatggcc cagctcgagg ccttgaccca 2700

gcgcctgggc gagctgaccc agcaggtggc tcagctgcag gagcagacgc gggccgcggt 2760

tgccacggtg aaatccaaat aaaaaatgaa tcaataaata aacggagacg gttgttgatt 2820

ttaacacaga gtctgaatct ttatttgatt tttcgcgcgc ggtaggccct ggaccaccgg 2880

tctcgatcat tgagcacccg gtggatcttt tccaggaccc ggtagaggtg ggcttggatg 2940

ttgaggtaca tgggcatgag cccgtcccgg gggtggaggt agctccattg cagggcctcg 3000

tgctcggggg tggtgttgta aatcacccag tcatagcagg ggcgcagggc atggtgttgc 3060

acaatatctt tgaggaggag actgatggcc acgggcagcc ctttggtgta ggtgtttaca 3120

aatctgttga gctgggaggg atgcatgcgg ggggagatga ggtgcatctt ggcctggatc 3180

ttgagattgg cgatgttacc gcccagatcc cgcctggggt tcatgttgtg caggaccacc 3240

agcacggtgt atccggtgca cttggggaat ttatcatgca acttggaagg gaaggcgtga 3300

aagaatttgg cgacgccttt gtgcccgccc aggttttcca tgcactcatc catgatgatg 3360

gcgatgggcc cgtgggcggc ggcctgggca aagacgtttc gggggtcgga cacatcatag 3420

ttgtggtcct gggtgaggtc atcataggcc attttaatga atttggggcg gagggtgccg 3480

gactgggggа caaaggtacc ctcgatcccg ggggcgtagt tcccctcaca gatctgcatc 3540

tcccaggctt tgagctcgga gggggggatc atgtccacct gcggggcgat aaagaacacg 3600

gtttccgggg cgggggagat gagctgggcc gaaagcaagt tccggagcag ctgggacttg 3660

ccgcagccgg tggggccgta gatgaccccg atgaccggct gcaggtggta gttgagggag 3720

agacagctgc cgtcctcccg gaggaggggg gccacctcgt tcatcatctc gcgcacgtgc 3780

atgttctcgc gcaccagttc cgccaggagg cgctctcccc ccagggatag gagctcctgg 3840

agcgaggcga agtttttcag cggcttgagt ccgtcggcca tgggcatttt ggagagggtt 3900

tgttgcaaga gttccaggcg gtcccagagc tcggtgatgt gctctacggc atctcgatcc 3960

agcagacctc ctcgtttcgc gggttgggac ggctgcggga gtagggcacc agacgatggg 4020

cgtccagcgc agccagggtc cggtccttcc agggtcgcag cgtccgcgtc agggtggtct 4080

ccgtcacggt gaaggggtgc gcgccgggct gggcgcttgc gagggtgcgc ttcaggctca 4140

tccggctggt cgaaaaccgc tcccgatcgg cgccctgcgc gtcggccagg tagcaattga 4200

ccatgagttc gtagttgagc gcctcggccg cgtggccttt ggcgcggagc ttacctttgg 4260

aagtctgccc gcaggcggga cagaggaggg acttgagggc gtagagcttg ggggcgagga 4320

agacggactc gggggcgtag gcgtccgcgc cgcagtgggc gcagacggtc tcgcactcca 4380

cgagccaggt gaggtcgggc tggtcggggt caaaaaccag tttcccgccg ttctttttga 4440

tgcgtttctt acctttggtc tccatgagct cgtgtccccg ctgggtgaca aagaggctgt 4500

ccgtgtcccc gtagaccgac tttatgggcc ggtcctcgag cggtgtgccg cggtcctcct 4560

cgtagaggaa ccccgcccac tccgagacga aagcccgggt ccaggccagc acgaaggagg 4620

ccacgtggga cgggtagcgg tcgttgtcca ccagcgggtc cacctttcc agggtatgca 4680

aacacatgtc cccctcgtcc acatccagga aggtgattgg cttgtaagtg taggccacgt 4740

gaccgggggt cccggccggg ggggtataaa agggtgcggg tccctgctcg tcctcactgt 4800

cttccggatc gctgtccagg agcgccagct gttggggtag gtattccctc tcgaaggcgg 4860

gcatgacctc ggcactcagg ttgtcagttt ctagaaacga ggaggatttg atattgacgg 4920

tgccggcgga gatgcctttc aagagcccct cgtccatctg gtcagaaaag acgatctttt 4980

tgttgtcgag cttggtggcg aaggagccgt agagggcgtt ggagaggagc ttggcgatgg 5040

agcgcatggt ctggtttttt tccttgtcgg cgcgctcctt ggcggcgatg ttgagctgca 5100

cgtactcgcg cgccacgcac ttccattcgg ggaagacggt ggtcagctcg tcgggcacga 5160

ttctgacctg ccagccccga ttatgcaggg tgatgaggtc cacactggtg gccacctcgc 5220

cgcgcagggg ctcattagtc cagcagaggc gtccgccctt gcgcgagcag aaggggggca 5280

gggggtccag catgacctcg tcgggggggt cggcatcgat ggtgaagatg ccgggcagga 5340

ggtcggggtc aaagtagctg atggaagtgg ccagatcgtc cagggcagct tgccattcgc 5400

gcacggccag cgcgctctcg tagggactga ggggcgtgcc ccagggcatg ggatgggtaa 5460

gcgcggaggc gtacatgccg cagatgtcgt agacgtagag gggctcctcg aggatgccga 5520

tgtaggtggg gtagcagcgc cccccgcgga tgctggcgcg cacgtagtca tacagctcgt 5580

gcgaggggggc gaggagcccc gggcccaggt tggtgcgact gggcttttcg gcgcggtaga 5640

cgatctggcg gaaaatggca tgcgagttgg aggagatggt gggcctttgg aagatgttga 5700

agtgggcgtg gggcagtccg accgagtcgc ggatgaagtg ggcgtaggag tcttgcagct 5760

tggcgacgag ctcggcggtg actaggacgt ccagagcgca gtagtcgagg gtctcctgga 5820

tgatgtcata cttgagctgt ccctttttgtt tccacagctc gcggttgaga aggaactctt 5880

cgcggtcctt ccagtactct tcgaggggga acccgtcctg atctgcacgg taagagccta 5940

gcatgtagaa ctggttgacg gccttgtagg cgcagcagcc cttctccacg gggagggcgt 6000

aggcctgggc ggccttgcgc agggaggtgt gcgtgagggc gaaagtgtcc ctgaccatga 6060

ccttgaggaa ctggtgcttg aagtcgatat cgtcgcagcc cccctgctcc cagagctgga 6120

agtccgtgcg cttcttgtag gcggggttgg gcaaagcgaa agtaacatcg ttgaagagga 6180

tcttgcccgc gcggggcata aagttgcgag tgatgcggaa aggttggggc acctcggccc 6240

ggttgttgat gacctgggcg gcgagcacga tctcgtcgaa gccgttgatg ttgtggccca 6300

cgatgtagag ttccacgaat cgcggacggc ccttgacgtg gggcagtttc ttgagctcct 6360

cgtaggtgag ctcgtcgggg tcgctgagcc cgtgctgctc gagcgcccag tcggcgagat 6420

gggggttggc gcggaggaag gaagtccaga gatccacggc cagggcggtt tgcagacggt 6480

cccggtactg acggaactgc tgcccgacgg ccatttttttc gggggtgacg cagtagaagg 6540

tgcgggggtc cccgtgccag cgatcccatt tgagctggag ggcgagatcg agggcgagct 6600

cgacgagccg gtcgtccccg gagagtttca tgaccagcat gaaggggacg agctgcttgc 6660

cgaaggaccc catccaggtg taggtttcca catcgtaggt gaggaagagc ctttcggtgc 6720

gaggatgcga gccgatgggg aagaactgga tctcctgcca ccaattggag gaatggctgt 6780

tgatgtgatg gaagtagaaa tgccgacggc gcgccgaaca ctcgtgcttg tgtttataca 6840

agcggccaca gtgctcgcaa cgctgcacgg gatgcacgtg ctgcacgagc tgtacctgag 6900

ttcctttgac gaggaatttc agtgggaagt ggagtcgtgg cgcctgcatc tcgtgctgta 6960

ctacgtcgtg gtggtcggcc tggccctctt ctgcctcgat ggtggtcatg ctgacgagcc 7020

cgcgcgggag gcaggtccag acctcggcgc gagcgggtcg gagagcgagg acgagggcgc 7080

gcaggccgga gctgtccagg gtcctgagac gctgcggagt caggtcagtg ggcagcggcg 7140

gcgcgcggtt gacttgcagg agtttttcca gggcgcgcgg gaggtccaga tggtacttga 7200

tctccaccgc gccattggtg gcgacgtcga tggcttgcag ggtcccgtgc ccctggggtg 7260

tgaccaccgt cccccgtttc ttcttgggcg gctggggcga cgggggcggt gcctcttcca 7320

tggttagaag cggcggcgag gacgcgcgcc gggcggcagg ggcggctcgg ggcccggagg 7380

caggggcggc aggggcacgt cggcgccgcg cgcgggtagg ttctggtact gcgcccggag 7440

aagactggcg tgagcgacga cgcgacggtt gacgtcctgg atctgacgcc tctgggtgaa 7500

ggccacggga cccgtgagtt tgaacctgaa agagagttcg acagaatcaa tctcggtatc 7560

gttgacggcg gcctgccgca ggatctcttg cacgtcgccc gagttgtcct ggtaggcgat 7620

ctcggtcatg aactgctcga tctcctcctc ttgaaggtct ccgcggccgg cgcgctccac 7680

ggtggccgcg aggtcgttgg agatgcggcc catgagctgc gagaaggcgt tcatgcccgc 7740

ctcgttccag acgcggctgt agaccacgac gccctcggga tcgcgggcgc gcatgaccac 7800

ctgggcgagg ttgagctcca cgtggcgcgt gaagaccgcg tagttgcaga ggcgctggta 7860

gaggtagttg agcgtggtgg cgatgtgctc ggtgacgaag aaatacatga tccagcggcg 7920

gagcggcatc tcgctgacgt cgcccagcgc ctccaaacgt tccatggcct cgtaaaagtc 7980

cacggcgaag ttgaaaaact gggagttgcg cgccgagacg gtcaactcct cctccagaag 8040

acggatgagc tcggcgatgg tggcgcgcac ctcgcgctcg aaggcccccg ggagttcctc 8100

cacttcctct tcttcctcct ccactaacat ctcttctact tcctcctcag gcggcagtgg 8160

tggcgggggа gggggcctgc gtcgccggcg gcgcacgggc agacggtcga tgaagcgctc 8220

gatggtctcg ccgcgccggc gtcgcatggt ctcggtgacg gcgcgcccgt cctcgcgggg 8280

ccgcagcgtg aagacgccgc cgcgcatctc caggtggccg ggggggtccc cgttgggcag 8340

ggagagggcg ctgacgatgc atcttatcaa ttgccccgta gggactccgc gcaaggacct 8400

gagcgtctcg agatccacgg gatctgaaaa ccgctgaacg aaggcttcga gccagtcgca 8460

gtcgcaaggt aggctgagca cggtttcttc tggcgggtca tgttggttgg gagcggggcg 8520

ggcgatgctg ctggtgatga agttgaaata ggcggttctg agacggcgga tggtggcgag 8580

gagcaccagg tctttgggcc cggcttgctg gatgcgcaga cggtcggcca tgccccaggc 8640

gtggtcctga cacctggcca ggtccttgta gtagtcctgc atgagccgct ccacgggcac 8700

ctcctcctcg cccgcgcggc cgtgcatgcg cgtgagcccg aagccgcgct ggggctggac 8760

gagcgccagg tcggcgacga cgcgctcggc gaggatggct tgctggatct gggtgagggt 8820

ggtctggaag tcatcaaagt cgacgaagcg gtggtaggct ccggtgttga tggtgtagga 8880

gcagttggcc atgacggacc agttgacggt ctggtggccc ggacgcacga gctcgtggta 8940

cttgaggcgc gagtaggcgc gcgtgtcgaa gatgtagtcg ttgcaggtgc gcaccaggta 9000

ctggtagccg atgaggaagt gcggcggcgg ctggcggtag agcggccatc gctcggtggc 9060

gggggcgccg ggcgcgaggt cctcgagcat ggtgcggtgg tagccgtaga tgtacctgga 9120

catccaggtg atgccggcgg cggtggtgga ggcgcgcggg aactcgcgga cgcggttcca 9180

gatgttgcgc agcggcagga agtagttcat ggtgggcacg gtctggcccg tgaggcgcgc 9240

gcagtcgtgg atgctctata cgggcaaaaa cgaaagcggt cagcggctcg actccgtggc 9300

ctggaggcta agcgaacggg ttgggctgcg cgtgtacccc ggttcgaatc tcgaatcagg 9360

ctggagccgc agctaacgtg gtattggcac tcccgtctcg acccaagcct gcaccaaccc 9420

tccaggatac ggaggcgggt cgttttgcaa ctttttttttg gaggccggat gagactagta 9480

agcgcggaaa gcggccgacc gcgatggctc gctgccgtag tctggagaag aatcgccagg 9540

gttgcgttgc ggtgtgcccc ggttcgaggc cggccggatt ccgcggctaa cgagggcgtg 9600

gctgccccgt cgtttccaag accccatagc cagccgactt ctccagttac ggagcgagcc 9660

cctcttttgt tttgtttgtt tttgccagat gcatcccgta ctgcggcaga tgcgccccca 9720

ccaccctcca ccgcaacaac agccccctcc acagccggcg cttctgcccc cgccccagca 9780

gcaacttcca gccacgaccg ccgcggccgc cgtgagcggg gctggacaga gttatgatca 9840

ccagctggcc ttggaagagg gcgaggggct ggcgcgcctg ggggcgtcgt cgccggagcg 9900

gcacccgcgc gtgcagatga aaagggacgc tcgcgaggcc tacgtgccca agcagaacct 9960

gttcagagac aggagcggcg aggagcccga ggagatgcgc gcggcccggt tccacgcggg 10020

gcgggagctg cggcgcggcc tggaccgaaa gagggtgctg agggacgagg atttcgaggc 10080

ggacgagctg acggggatca gccccgcgcg cgcgcacgtg gccgcggcca acctggtcac 10140

ggcgtacgag cagaccgtga aggaggagag caacttccaa aaatccttca acaaccacgt 10200

gcgcaccctg atcgcgcgcg aggaggtgac cctgggcctg atgcacctgt gggacctgct 10260

ggaggccatc gtgcagaacc ccaccagcaa gccgctgacg gcgcagctgt tcctggtggt 10320

gcagcatagt cgggacaacg aagcgttcag ggaggcgctg ctgaatatca ccgagcccga 10380

gggccgctgg ctcctggacc tggtgaacat tctgcagagc atcgtggtgc aggagcgcgg 10440

gctgccgctg tccgagaagc tggcggccat caacttctcg gtgctgagtt tgggcaagta 10500

ctacgctagg aagatctaca agaccccgta cgtgcccata gacaaggagg tgaagatcga 10560

cgggttttac atgcgcatga ccctgaaagt gctgaccctg agcgacgatc tgggggtgta 10620

ccgcaacgac aggatgcacc gtgcggtgag cgccagcagg cggcgcgagc tgagcgacca 10680

ggagctgatg catagtctgc agcgggccct gaccggggcc gggaccgagg gggagagcta 10740

ctttgacatg ggcgcggacc tgcactggca gcccagccgc cgggccttgg aggcggcggc 10800

aggaccctac gtagaagagg tggacgatga ggtggacgag gagggcgagt acctggaaga 10860

ctgatggcgc gaccgtattt ttgctagatg caacaacaac agccacctcc tgatcccgcg 10920

atgcgggcgg cgctgcagag ccagccgtcc ggcattaact cctcggacga ttggacccag 10980

gccatgcaac gcatcatggc gctgacgacc cgcaaccccg aagcctttag acagcagccc 11040

caggccaacc ggctctcggc catcctggag gccgtggtgc cctcgcgctc caaccccacg 11100

cacgagaagg tcctggccat cgtgaacgcg ctggtggaga acaaggccat ccgcggcgac 11160

gaggccggcc tggtgtacaa cgcgctgctg gagcgcgtgg cccgctacaa cagcaccaac 11220

gtgcagacca acctggaccg catggtgacc gacgtgcgcg aggccgtggc ccagcgcgag 11280

cggttccacc gcgagtccaa cctgggatcc atggtggcgc tgaacgcctt cctcagcacc 11340

cagcccgcca acgtgccccg gggccaggag gactacacca acttcatcag cgccctgcgc 11400

ctgatggtga ccgaggtgcc ccagagcgag gtgtaccagt ccgggccgga ctacttcttc 11460

cagaccagtc gccagggctt gcagaccgtg aacctgagcc aggctttcaa gaacttgcag 11520

ggcctgtggg gcgtgcaggc cccggtcggg gaccgcgcga cggtgtcgag cctgctgacg 11580

ccgaactcgc gcctgctgct gctgctggtg gccccccttca cggacagcgg cagcatcaac 11640

cgcaactcgt acctgggcta cctgattaac ctgtaccgcg aggccatcgg ccaggcgcac 11700

gtggacgagc agacctacca ggagatcacc cacgtgagcc gcgccctggg ccaggacgac 11760

ccgggcaacc tggaagccac cctgaacttt ttgctgacca accggtcgca gaagatcccg 11820

ccccagtacg cgctcagcac cgaggaggag cgcatcctgc gttacgtgca gcagagcgtg 11880

ggcctgttcc tgatgcagga gggggccacc cccagcgccg cgctcgacat gaccgcgcgc 11940

aacatggagc ccagcatgta cgccagcaac cgcccgttca tcaataaact gatggactac 12000

ttgcatcggg cggccgccat gaactctgac tatttcacca acgccatcct gaatccccac 12060

tggctcccgc cgccggggtt ctacacgggc gagtacgaca tgcccgaccc caatgacggg 12120

ttcctgtggg acgatgtgga cagcagcgtg ttctcccccc gaccgggtgc taacgagcgc 12180

cccttgtgga agaaggaagg cagcgaccga cgcccgtcct cggcgctgtc cggccgcgag 12240

ggtgctgccg cggcggtgcc cgaggccgcc agtcctttcc cgagcttgcc cttctcgctg 12300

aacagtatcc gcagcagcga gctgggcagg atcacgcgcc cgcgcttgct gggcgaagag 12360

gagtacttga atgactcgct gttgagaccc gagcgggaga agaacttccc caataacggg 12420

atagaaagcc tggtggacaa gatgagccgc tggaagacgt atgcgcagga gcacagggac 12480

gatccccggg cgtcgcaggg ggccacgagc cggggcagcg ccgcccgtaa acgccggtgg 12540

cacgacaggc agcggggaca gatgtgggac gatgaggact ccgccgacga cagcagcgtg 12600

ttggacttgg gtgggagtgg taacccgttc gctcacctgc gcccccgtat cgggcgcatg 12660

atgtaagaga aaccgaaaat aaatgatact caccaaggcc atggcgacca gcgtgcgttc 12720

gtttcttctc tgttgttgtt gtatctagta tgatgaggcg tgcgtacccg gagggtcctc 12780

ctccctcgta cgagagcgtg atgcagcagg cgatggcggc ggcggcgatg cagcccccgc 12840

tggaggctcc ttacgtgccc ccgcggtacc tggcgcctac ggaggggcgg aacagcattc 12900

gttactcgga gctggcaccc ttgtacgata ccacccggtt gtacctggtg gacaacaagt 12960

cggcggacat cgcctcgctg aactaccaga acgaccacag caacttcctg accaccgtgg 13020

tgcagaacaa tgacttcacc cccacggagg ccagcaccca gaccatcaac tttgacgagc 13080

gctcgcggtg gggcggccag ctgaaaacca tcatgcacac caacatgccc aacgtgaacg 13140

agttcatgta cagcaacaag ttcaaggcgc gggtgatggt ctcccgcaag acccccaatg 13200

gggtgacagt gacagaggat tatgatggta gtcaggatga gctgaagtat gaatgggtgg 13260

aatttgagct gcccgaaggc aacttctcgg tgaccatgac catcgacctg atgaacaacg 13320

ccatcatcga caattacttg gcggtggggc ggcagaacgg ggtgctggag agcgacatcg 13380

gcgtgaagtt cgacactagg aacttcaggc tgggctggga ccccgtgacc gagctggtca 13440

tgcccggggt gtacaccaac gaggctttcc atcccgatat tgtcttgctg cccggctgcg 13500

gggtggactt caccgagagc cgcctcagca acctgctggg cattcgcaag aggcagccct 13560

tccaggaagg cttccagatc atgtacgagg atctggaggg gggcaacatc cccgcgctcc 13620

tggatgtcga cgcctatgag aaaagcaagg aggatgcagc agctgaagca actgcagccg 13680

tagctaccgc ctctaccgag gtcaggggcg ataattttgc aagcgccgca gcagtggcag 13740

cggccgaggc ggctgaaacc gaaagtaaga tagtcattca gccggtggag aaggatagca 13800

agaacaggag ctacaacgta ctaccggaca agataaacac cgcctaccgc agctggtacc 13860

tagcctacaa ctatggcgac cccgagaagg gcgtgcgctc ctggacgctg ctcaccacct 13920

cggacgtcac ctgcggcgtg gagcaagtct actggtcgct gcccgacatg atgcaagacc 13980

cggtcacctt ccgctccacg cgtcaagtta gcaactaccc ggtggtgggc gccgagctcc 14040

tgcccgtcta ctccaagagc ttcttcaacg agcaggccgt ctactcgcag cagctgcgcg 14100

ccttcacctc gcttacgcac gtcttcaacc gcttccccga gaaccagatc ctcgtccgcc 14160

cgcccgcgcc caccattacc accgtcagtg aaaacgttcc tgctctcaca gatcacggga 14220

ccctgccgct gcgcagcagt atccggggag tccagcgcgt gaccgttact gacgccagac 14280

gccgcacctg cccctacgtc tacaaggccc tgggcatagt cgcgccgcgc gtcctctcga 14340

gccgcacctt ctaaatgtcc attctcatct cgcccagtaa taacaccggt tggggcctgc 14400

gcgcgcccag caagatgtac ggaggcgctc gccaacgctc cacgcaacac cccgtgcgcg 14460

tgcgcgggca cttccgcgct ccctggggcg ccctcaaggg ccgcgtgcgg tcgcgcacca 14520

ccgtcgacga cgtgatcgac caggtggtgg ccgacgcgcg caactacacc cccgccgccg 14580

cgcccgtctc caccgtggac gccgtcatcg acagcgtggt ggccgacgcg cgccggtacg 14640

cccgcgccaa gagccggcgg cggcgcatcg cccggcggca ccggagcacc cccgccatgc 14700

gcgcggcgcg agccttgctg cgcagggcca ggcgcacggg acgcagggcc atgctcaggg 14760

cggccagacg cgcggcttca ggcgccagcg ccggcaggac ccggagacgc gcggccacgg 14820

cggcggcagc ggccatcgcc agcatgtccc gcccgcggcg agggaacgtg tactgggtgc 14880

gcgacgccgc caccggtgtg cgcgtgcccg tgcgcacccg ccccccctcgc acttgaagat 14940

gttcacttcg cgatgttgat gtgtcccagc ggcgaggagg atgtccaagc gcaaattcaa 15000

ggaagagatg ctccaggtca tcgcgcctga gatctacggc cctgcggtgg tgaaggagga 15060

aagaaagccc cgcaaaatca agcgggtcaa aaaggacaaa aaggaagaag aaagtgatgt 15120

ggacggattg gtggagtttg tgcgcgagtt cgccccccgg cggcgcgtgc agtggcgcgg 15180

gcggaaggtg caaccggtgc tgagacccgg caccaccgtg gtcttcacgc ccggcgagcg 15240

ctccggcacc gcttccaagc gctcctacga cgaggtgtac ggggatgatg atattctgga 15300

gcaggcggcc gagcgcctgg gcgagtttgc ttacggcaag cgcagccgtt ccgcaccgaa 15360

ggaagaggcg gtgtccatcc cgctggacca cggcaacccc acgccgagcc tcaagcccgt 15420

gaccttgcag caggtgctgc cgaccgcggc gccgcgccgg gggttcaagc gcgagggcga 15480

ggatctgtac cccaccatgc agctgatggt gcccaagcgc cagaagctgg aagacgtgct 15540

ggagaccatg aaggtggacc cggacgtgca gcccgaggtc aaggtgcggc ccatcaagca 15600

ggtggccccg ggcctgggcg tgcagaccgt ggacatcaag attcccacgg agcccatgga 15660

aacgcagacc gagcccatga tcaagcccag caccagcacc atggaggtgc agacggatcc 15720

ctggatgcca tcggctccta gtcgaagacc ccggcgcaag tacggcgcgg ccagcctgct 15780

gatgcccaac tacgcgctgc atccttccat catccccacg ccgggctacc gcggcacgcg 15840

cttctaccgc ggtcatacca gcagccgccg ccgcaagacc accactcgcc gccgccgtcg 15900

ccgcaccgcc gctgcaacca cccctgccgc cctggtgcgg agagtgtacc gccgcggccg 15960

cgcacctctg accctgccgc gcgcgcgcta ccacccgagc atcgccattt aaactttcgc 16020

ctgctttgca gatcaatggc cctcacatgc cgccttcgcg ttcccattac gggctaccga 16080

ggaagaaaac cgcgccgtag aaggctggcg gggaacggga tgcgtcgcca ccaccaccgg 16140

cggcggcgcg ccatcagcaa gcggttgggg ggaggcttcc tgcccgcgct gatccccatc 16200

atcgccgcgg cgatcggggc gatccccggc attgcttccg tggcggtgca ggcctctcag 16260

cgccactgag acacacttgg aaacatcttg taataaacca atggactctg acgctcctgg 16320

tcctgtgatg tgttttcgta gacagatgga agacatcaat ttttcgtccc tggctccgcg 16380

acacggcacg cggccgttca tgggcacctg gagcgacatc ggcaccagcc aactgaacgg 16440

gggcgccttc aattggagca gtctctggag cgggcttaag aatttcgggt ccacgcttaa 16500

aacctatggc agcaaggcgt ggaacagcac cacagggcag gcgctgaggg ataagctgaa 16560

agagcagaac ttccagcaga aggtggtcga tgggctcgcc tcgggcatca acggggtggt 16620

ggacctggcc aaccaggccg tgcagcggca gatcaacagc cgcctggacc cggtgccgcc 16680

cgccggctcc gtggagatgc cgcaggtgga ggaggagctg cctcccctgg acaagcgggg 16740

cgagaagcga ccccgccccg atgcggagga gacgctgctg acgcacacgg acgagccgcc 16800

cccgtacgag gaggcggtga aactgggtct gcccaccacg cggcccatcg cgcccctggc 16860

caccggggtg ctgaaacccg aaaagcccgc gaccctggac ttgcctcctc cccagccttc 16920

ccgcccctct acagtggcta agcccctgcc gccggtggcc gtggcccgcg cgcgacccgg 16980

gggcaccgcc cgccctcatg cgaactggca gagcactctg aacagcatcg tgggtctggg 17040

agtgcagagt gtgaagcgcc gccgctgcta ttaaacctac cgtagcgctt aacttgcttg 17100

tctgtgtgtg tatgtattat gtcgccgccg ccgctgtcca ccagaaggag gagtgaagag 17160

gcgcgtcgcc gagttgcaag atggccaccc catcgatgct gccccagtgg gcgtacatgc 17220

acatcgccgg acaggacgct tcggagtacc tgagtccggg tctggtgcag tttgcccgcg 17280

ccacagacac ctacttcagt ctggggaaca agtttaggaa ccccacggtg gcgcccacgc 17340

acgatgtgac caccgaccgc agccagcggc tgacgctgcg cttcgtgccc gtggaccgcg 17400

aggacaacac ctactcgtac aaagtgcgct acacgctggc cgtgggcgac aaccgcgtgc 17460

tggacatggc cagcacctac tttgacatcc gcggcgtgct ggatcggggc cctagcttca 17520

aaccctactc cggcaccgcc tacaacagtc tggcccccaa gggagcaccc aacacttgtc 17580

agtggacata taaagccgat ggtgaaactg ccacagaaaa aacctataca tatggaaatg 17640

cacccgtgca gggcattaac atcacaaaag atggtattca acttggaact gacaccgatg 17700

atcagccaat ctacgcagat aaaacctatc agcctgaacc tcaagtgggt gatgctgaat 17760

ggcatgacat cactggtact gatgaaaagt atggaggcag agctcttaag cctgatacca 17820

aaatgaagcc ttgttatggt tcttttgcca agcctactaa taaagaagga ggtcaggcaa 17880

atgtgaaaac aggaacaggc actactaaag aatatgacat agacatggct ttctttgaca 17940

acagaagtgc ggctgctgct ggcctagctc cagaaattgt tttgtatact gaaaatgtgg 18000

atttggaaac tccagatacc catattgtat acaaagcagg cacagatgac agcagctctt 18060

ctattaattt gggtcagcaa gccatgccca acagacctaa ctacattggt ttcagagaca 18120

actttatcgg gctcatgtac tacaacagca ctggcaatat gggggtgctg gccggtcagg 18180

cttctcagct gaatgctgtg gttgacttgc aagacagaaa caccgagctg tcctaccagc 18240

tcttgcttga ctctctgggt gacagaaccc ggtatttcag tatgtggaat caggcggtgg 18300

acagctatga tcctgatgtg cgcattattg aaaatcatgg tgtggaggat gaacttccca 18360

actattgttt ccctctggat gctgttggca gaacagatac ttatcaggga attaaggcta 18420

atggaactga tcaaaccaca tggaccaaag atgacagtgt caatgatgct aatgagatag 18480

gcaagggtaa tccattcgcc atggaaatca acatccaagc caacctgtgg aggaacttcc 18540

tctacgccaa cgtggccctg tacctgcccg actcttacaa gtacacgccg gccaatgtta 18600

ccctgcccac caacaccaac acctacgatt acatgaacgg ccgggtggtg gcgccctcgc 18660

tggtggactc ctacatcaac atcggggcgc gctggtcgct ggatcccatg gacaacgtga 18720

acccccttcaa ccaccaccgc aatgcggggc tgcgctaccg ctccatgctc ctgggcaacg 18780

ggcgctacgt gcccttccac atccaggtgc cccagaaatt tttcgccatc aagagcctcc 18840

tgctcctgcc cgggtcctac acctacgagt ggaacttccg caaggacgtc aacatgatcc 18900

tgcagagctc cctcggcaac gacctgcgca cggacggggc ctccatctcc ttcaccagca 18960

tcaacctcta cgccaccttc ttccccatgg cgcacaacac ggcctccacg ctcgaggcca 19020

tgctgcgcaa cgacaccaac gaccagtcct tcaacgacta cctctcggcg gccaacatgc 19080

tctaccccat cccggccaac gccaccaacg tgcccatctc catcccctcg cgcaactggg 19140

ccgccttccg cggctggtcc ttcacgcgtc tcaagaccaa ggagacgccc tcgctgggct 19200

ccgggttcga cccctacttc gtctactcgg gctccatccc ctacctcgac ggcaccttct 19260

acctcaacca caccttcaag aaggtctcca tcaccttcga ctcctccgtc agctggcccg 19320

gcaacgaccg gctcctgacg cccaacgagt tcgaaatcaa gcgcaccgtc gacggcgagg 19380

gctacaacgt ggcccagtgc aacatgacca aggactggtt cctggtccag atgctggccc 19440

actacaacat cggctaccag ggcttctacg tgcccgaggg ctacaaggac cgcatgtact 19500

ccttcttccg caacttccag cccatgagcc gccaggtggt ggacgaggtc aactacaagg 19560

actaccaggc cgtcaccctg gcctaccagc acaacaactc gggcttcgtc ggctacctcg 19620

cgcccaccat gcgccagggc cagccctacc ccgccaacta cccctacccg ctcatcggca 19680

agagcgccgt caccagcgtc acccagaaaa agttcctctg cgacagggtc atgtggcgca 19740

tccccttctc cagcaacttc atgtccatgg gcgcgctcac cgacctcggc cagaacatgc 19800

tctatgccaa ctccgcccac gcgctagaca tgaatttcga agtcgacccc atggatgagt 19860

ccacccttct ctatgttgtc ttcgaagtct tcgacgtcgt ccgagtgcac cagccccacc 19920

gcggcgtcat cgaggccgtc tacctgcgca ccccccttctc ggccggtaac gccaccacct 19980

aagctcttgc ttcttgcaag ccatggccgc gggctccggc gagcaggagc tcagggccat 20040

catccgcgac ctgggctgcg ggccctactt cctgggcacc ttcgataagc gcttcccggg 20100

attcatggcc ccgcacaagc tggcctgcgc catcgtcaac acggccggcc gcgagaccgg 20160

gggcgagcac tggctggcct tcgcctggaa cccgcgctcg aacacctgct acctcttcga 20220

ccccttcggg ttctcggacg agcgcctcaa gcagatctac cagttcgagt acgagggcct 20280

gctgcgccgc agcgccctgg ccaccgagga ccgctgcgtc accctggaaa agtccaccca 20340

gaccgtgcag ggtccgcgct cggccgcctg cgggctcttc tgctgcatgt tcctgcacgc 20400

cttcgtgcac tggcccgacc gccccatgga caagaacccc accatgaact tgctgacggg 20460

ggtgcccaac ggcatgctcc agtcgcccca ggtggaaccc accctgcgcc gcaaccagga 20520

ggcgctctac cgcttcctca actcccactc cgcctacttt cgctcccacc gcgcgcgcat 20580

cgagaaggcc accgccttcg accgcatgaa tcaagacatg taaaccgtgt gtgtatgtta 20640

aatgtcttta ataaacagca ctttcatgtt acacatgcat ctgagatgat ttatttagaa 20700

atcgaaaggg ttctgccggg tctcggcatg gcccgcgggc agggacacgt tgcggaactg 20760

gtacttggcc agccacttga actcggggat cagcagtttg ggcagcgggg tgtcggggaa 20820

ggagtcggtc cacagcttcc gcgtcagttg cagggcgccc agcaggtcgg gcgcggagat 20880

cttgaaatcg cagttgggac ccgcgttctg cgcgcgggag ttgcggtaca cggggttgca 20940

gcactggaac accatcaggg ccgggtgctt cacgctcgcc agcaccgtcg cgtcggtgat 21000

gctctccacg tcgaggtcct cggcgttggc catcccgaag ggggtcatct tgcaggtctg 21060

ccttcccatg gtgggcacgc acccgggctt gtggttgcaa tcgcagtgca gggggatcag 21120

catcatctgg gcctggtcgg cgttcatccc cgggtacatg gccttcatga aagcctccaa 21180

ttgcctgaac gcctgctggg ccttggctcc ctcggtgaag aagaccccgc aggacttgct 21240

agagaactgg ttggtggcgc acccggcgtc gtgcacgcag cagcgcgcgt cgttgttggc 21300

cagctgcacc acgctgcgcc cccagcggtt ctgggtgatc ttggcccggt cggggttctc 21360

cttcagcgcg cgctgcccgt tctcgctcgc cacatccatc tcgatcatgt gctccttctg 21420

gatcatggtg gtcccgtgca ggcaccgcag cttgccctcg gcctcggtgc acccgtgcag 21480

ccacagcgcg cacccggtgc actcccagtt cttgtgggcg atctgggaat gcgcgtgcac 21540

gaagccctgc aggaagcggc ccatcatggt ggtcagggtc ttgttgctag tgaaggtcag 21600

cggaatgccg cggtgctcct cgttgatgta caggtggcag atgcggcggt acacctcgcc 21660

ctgctcgggc atcagctgga agttggcttt caggtcggtc tccacgcggt agcggtccat 21720

cagcatagtc atgatttcca tacccttctc ccaggccgag acgatgggca ggctcatagg 21780

gttcttcacc atcatcttag cgctagcagc cgcggccagg gggtcgctct cgtccagggt 21840

ctcaaagctc cgcttgccgt ccttctcggt gatccgcacc ggggggtagc tgaagcccac 21900

ggccgccagc tcctcctcgg cctgtctttc gtcctcgctg tcctggctga cgtcctgcag 21960

gaccacatgc ttggtcttgc ggggtttctt cttgggcggc agcggcggcg gagatgttgg 22020

agatggcgag ggggagcgcg agttctcgct caccactact atctcttcct cttcttggtc 22080

cgaggccacg cggcggtagg tatgtctctt cgggggcaga ggcggaggcg acgggctctc 22140

gccgccgcga cttggcggat ggctggcaga gcccccttccg cgttcggggg tgcgctcccg 22200

gcggcgctct gactgacttc ctccgcggcc ggccattgtg ttctcctagg gaggaacaac 22260

aagcatggag actcagccat cgccaacctc gccatctgcc cccaccgccg acgagaagca 22320

gcagcagcag aatgaaagct taaccgcccc gccgcccagc cccgccacct ccgacgcggc 22380

cgtcccagac atgcaagaga tggaggaatc catcgagatt gacctgggct atgtgacgcc 22440

cgcggagcac gaggaggagc tggcagtgcg cttttcacaa gaagagatac accaagaaca 22500

gccagagcag gaagcagaga atgagcagag tcaggctggg ctcgagcatg acggcgacta 22560

cctccacctg agcgggggggg aggacgcgct catcaagcat ctggcccggc aggccaccat 22620

cgtcaaggat gcgctgctcg accgcaccga ggtgcccctc agcgtggagg agctcagccg 22680

cgcctacgag ttgaacctct tctcgccgcg cgtgcccccc aagcgccagc ccaatggcac 22740

ctgcgagccc aacccgcgcc tcaacttcta cccggtcttc gcggtgcccg aggccctggc 22800

cacctaccac atctttttca agaaccaaaa gatccccgtc tcctgccgcg ccaaccgcac 22860

ccgcgccgac gccctttttca acctgggtcc cggcgcccgc ctacctgata tcgcctcctt 22920

ggaagaggtt cccaagatct tcgagggtct gggcagcgac gagactcggg ccgcgaacgc 22980

tctgcaagga gaaggaggag agcatgagca ccacagcgcc ctggtcgagt tggaaggcga 23040

caacgcgcgg ctggcggtgc tcaaacgcac ggtcgagctg acccatttcg cctacccggc 23100

tctgaacctg ccccccaaag tcatgagcgc ggtcatggac caggtgctca tcaagcgcgc 23160

gtcgcccatc tccgaggacg agggcatgca agactccgag gagggcaagc ccgtggtcag 23220

cgacgagcag ctggcccggt ggctgggtcc taatgctagt ccccagagtt tggaagagcg 23280

gcgcaaactc atgatggccg tggtcctggt gaccgtggag ctggagtgcc tgcgccgctt 23340

cttcgccgac gcggagaccc tgcgcaaggt cgaggagaac ctgcactacc tcttcaggca 23400

cgggttcgtg cgccaggcct gcaagatctc caacgtggag ctgaccaacc tggtctccta 23460

catgggcatc ttgcacgaga accgcctggg gcagaacgtg ctgcacacca ccctgcgcgg 23520

ggaggcccgg cgcgactaca tccgcgactg cgtctacctc tacctctgcc acacctggca 23580

gacgggcatg ggcgtgtggc agcagtgtct ggaggagcag aacctgaaag agctctgcaa 23640

gctcctgcag aagaacctca agggtctgtg gaccgggttc gacgagcgca ccaccgcctc 23700

ggacctggcc gacctcattt tccccgagcg cctcaggctg acgctgcgca acggcctgcc 23760

cgactttatg agccaaagca tgttgcaaaa ctttcgctct ttcatcctcg aacgctccgg 23820

aatcctgccc gccacctgct ccgcgctgcc ctcggacttc gtgccgctga ccttccgcga 23880

gtgccccccg ccgctgtgga gccactgcta cctgctgcgc ctggccaact acctggccta 23940

ccactcggac gtgatcgagg acgtcagcgg cgagggcctg ctcgagtgcc actgccgctg 24000

caacctctgc acgccgcacc gctccctggc ctgcaacccc cagctgctga gcgagaccca 24060

gatcatcggc accttcgagt tgcaagggcc cagcgaaggc gagggttcag ccgccaaggg 24120

gggtctgaaa ctcaccccgg ggctgtggac ctcggcctac ttgcgcaagt tcgtgcccga 24180

ggactaccat cccttcgaga tcaggttcta cgaggaccaa tcccatccgc ccaaggccga 24240

gctgtcggcc tgcgtcatca cccagggggc gatcctggcc caattgcaag ccatccagaa 24300

atcccgccaa gaattcttgc tgaaaaaggg ccgcggggtc tacctcgacc cccagaccgg 24360

tgaggagctc aaccccggct tcccccagga tgccccgagg aaacaagaag ctgaaagtgg 24420

agctgccgcc cgtggaggat ttggaggaag actgggagaa cagcagtcag gcagaggagg 24480

aggagatgga ggaagactgg gacagcactc aggcagagga ggacagcctg caagacagtc 24540

tggaggaaga cgaggaggag gcagaggagg aggtggaaga agcagccgcc gccagaccgt 24600

cgtcctcggc gggggagaaa gcaagcagca cggataccat ctccgctccg ggtcggggtc 24660

ccgctcgacc acacagtaga tgggacgaga ccggacgatt cccgaacccc accacccaga 24720

ccggtaagaa ggagcggcag ggatacaagt cctggcgggg gcacaaaaac gccatcgtct 24780

cctgcttgca ggcctgcggg ggcaacatct ccttcacccg gcgctacctg ctcttccacc 24840

gcggggtgaa ctttccccgc aacatcttgc attactaccg tcacctccac agcccctact 24900

acttccaaga agaggcagca gcagcagaaa aagaccagca gaaaaccagc agctagaaaa 24960

tccacagcgg cggcagcagg tggactgagg atcgcggcga acgagccggc gcaaacccgg 25020

gagctgagga accggatctt tcccaccctc tatgccatct tccagcagag tcgggggcag 25080

gagcaggaac tgaaagtcaa gaaccgttct ctgcgctcgc tcacccgcag ttgtctgtat 25140

cacaagagcg aagaccaact tcagcgcact ctcgaggacg ccgaggctct cttcaacaag 25200

tactgcgcgc tcactcttaa agagtagccc gcgcccgccc agtcgcagaa aaaggcggga 25260

attacgtcac ctgtgccctt cgccctagcc gcctccaccc atcatcatga gcaaagagat 25320

tcccacgcct tacatgtgga gctaccagcc ccagatgggc ctggccgccg gtgccgccca 25380

ggactactcc acccgcatga attggctcag cgccgggccc gcgatgatct cacgggtgaa 25440

tgacatccgc gcccaccgaa accagatact cctagaacag tcagcgctca ccgccacgcc 25500

ccgcaatcac ctcaatccgc gtaattggcc cgccgccctg gtgtaccagg aaattcccca 25560

gcccacgacc gtactacttc cgcgagacgc ccaggccgaa gtccagctga ctaactcagg 25620

tgtccagctg gcgggcggcg ccaccctgtg tcgtcaccgc cccgctcagg gtataaagcg 25680

gctggtgatc cggggcagag gcacacagct caacgacgag gtggtgagct cttcgctggg 25740

tctgcgacct gacggagtct tccaactcgc cggatcgggg agatcttcct tcacgcctcg 25800

tcaggccgtc ctgactttgg agagttcgtc ctcgcagccc cgctcgggtg gcatcggcac 25860

tctccagttc gtggaggagt tcactccctc ggtctacttc aacccccttct ccggctcccc 25920

cggccactac ccggacgagt tcatcccgaa cttcgacgcc atcagcgagt cggtggacgg 25980

ctacgattga atgtcccatg gtggcgcagc tgacctagct cggcttcgac acctggacca 26040

ctgccgccgc ttccgctgct tcgctcggga tctcgccgag tttgcctact ttgagctgcc 26100

cgaggagcac cctcagggcc cggcccacgg agtgcggatc gtcgtcgaag ggggcctcga 26160

ctcccacctg cttcggatct tcagccagcg tccgatcctg gtcgagcgcg agcaaggaca 26220

gacccttctg actctgtact gcatctgcaa ccaccccggc ctgcatgaaa gtctttgttg 26280

tctgctgtgt actgagtata ataaaagctg agatcagcga ctactccgga cttccgtgtg 26340

ttcctgaatc catcaaccag tctttgttct tcaccgggaa cgagaccgag ctccagctcc 26400

agtgtaagcc ccacaagaag tacctcacct ggctgttcca gggctccccg atcgccgttg 26460

tcaaccactg cgacaacgac ggagtcctgc tgagcggccc tgccaacctt acttttcca 26520

cccgcagaag caagctccag ctcttccaac ccttcctccc cgggacctat cagtgcgtct 26580

cgggaccctg ccatcacacc ttccacctga tcccgaatac cacagcgtcg ctccccgcta 26640

ctaacaacca aactaacctc caccaacgcc accgtcgcga cggccacaat acatgcccat 26700

attagactat gaggccgagc cacagcgacc catgctcccc gctattagtt acttcaatct 26760

aaccggcgga gatgactgac ccactggcca acaacaacgt caacgacctt ctcctggaca 26820

tggacggccg cgcctcggag cagcgactcg cccaacttcg cattcgccag cagcaggaga 26880

gagccgtcaa ggagctgcag gatgcggtgg ccatccacca gtgcaagaga ggcatcttct 26940

gcctggtgaa acaggccaag atctcctacg aggtcactcc aaacgaccat cgcctctcct 27000

acgagctcct gcagcagcgc cagaagttca cctgcctggt cggagtcaac cccatcgtca 27060

tcacccagca gtctggcgat accaaggggt gcatccactg ctcctgcgac tcccccgact 27120

gcgtccacac tctgatcaag accctctgcg gcctccgcga cctcctcccc atgaactaat 27180

cacccccttа tccagtgaaa taaagatcat attgatgatg attttacaga aataaaaaat 27240

aatcatttga tttgaaataa agatacaatc atattgatga tttgagttta acaaaaaaat 27300

aaagaatcac ttacttgaaa tctgatacca ggtctctgtc catgttttct gccaacacca 27360

cttcactccc ctcttcccag ctctggtact gcaggccccg gcgggctgca aacttcctcc 27420

acacgctgaa ggggatgtca aattcctcct gtccctcaat cttcatttta tcttctatca 27480

gatgtccaaa aagcgcgtcc gggtggatga tgacttcgac cccgtctacc cctacgatgc 27540

agacaacgca ccgaccgtgc ccttcatcaa ccccccccttc gtctcttcag atggattcca 27600

agagaagccc ctgggggtgt tgtccctgcg actggccgac cccgtcacca ccaagaacgg 27660

ggaaatcacc ctcaagctgg gagagggggt ggacctcgat tcctcgggaa aactcatctc 27720

caacacggcc accaaggccg ccgcccctct cagtttttcc aacaacacca tttcccttaa 27780

catggatcac ccctttttaca ctaaagatgg aaaattatcc ttacaagttt ctccaccatt 27840

aaatatactg agaacaagca ttctaaacac actagcttta ggttttggat caggtttagg 27900

actccgtggc tctgccttgg cagtacagtt agtctctcca cttacatttg atactgatgg 27960

aaacataaag cttaccttag acagaggttt gcatgttaca acaggagatg caattgaaag 28020

caacataagc tgggctaaag gtttaaaatt tgaagatgga gccatagcaa ccaacattgg 28080

aaatgggtta gagtttggaa gcagtagtac agaaacaggt gttgatgatg cttacccaat 28140

ccaagttaaa cttggatctg gccttagctt tgacagtaca ggagccataa tggctggtaa 28200

caaagaagac gataaactca ctttgtggac aacacctgat ccatcaccaa actgtcaaat 28260

actcgcagaa aatgatgcaa aactaacact ttgcttgact aaatgtggta gtcaaatact 28320

ggccactgtg tcagtcttag ttgtaggaag tggaaaccta aaccccatta ctggcaccgt 28380

aagcagtgct caggtgtttc tacgttttga tgcaaacggt gttcttttaa cagaacattc 28440

tacactaaaa aaatactggg ggtataggca gggagatagc atagatggca ctccatatac 28500

caatgctgta ggattcatgc ccaatttaaa agcttatcca aagtcacaaa gttctactac 28560

taaaaataat atagtagggc aagtatacat gaatggagat gtttcaaaac ctatgcttct 28620

cactataacc ctcaatggta ctgatgacag caacagtaca tattcaatgt cattttcata 28680

cacctggact aatggaagct atgttggagc aacatttggg gctaactctt ataccttctc 28740

atacatcgcc caagaatgaa cactgtatcc caccctgcat gccaaccctt cccaccccac 28800

tctgtggaac aaactctgaa acacaaaata aaataaagtt caagtgtttt attgattcaa 28860

cagttttaca ggattcgagc agttattttt cctccaccct cccaggacat ggaatacacc 28920

accctctccc cccgcacagc cttgaacatc tgaatgccat tggtgatgga catgcttttg 28980

gtctccacgt tccacacagt ttcagagcga gccagtctcg ggtcggtcag ggagatgaaa 29040

ccctccgggc actcccgcat ctgcacctca cagctcaaca gctgaggatt gtcctcggtg 29100

gtcgggatca cggttatctg gaagaagcag aagagcggcg gtgggaatca tagtccgcga 29160

acgggatcgg ccggtggtgt cgcatcaggc cccgcagcag tcgctgccgc cgccgctccg 29220

tcaagctgct gctcaggggg tccgggtcca gggactccct cagcatgatg cccacggccc 29280

tcagcatcag tcgtctggtg cggcgggcgc agcagcgcat gcggatctcg ctcaggtcgc 29340

tgcagtacgt gcaacacaga accaccaggt tgttcaacag tccatagttc aacacgctcc 29400

agccgaaact catcgcggga aggatgctac ccacgtggcc gtcgtaccag atcctcaggt 29460

aaatcaagtg gtgccccctc cagaacacgc tgcccacgta catgatctcc ttgggcatgt 29520

ggcggttcac cacctcccgg taccacatca ccctctggtt gaacatgcag ccccggatga 29580

tcctgcggaa ccacagggcc agcaccgccc cgcccgccat gcagcgaaga gaccccgggt 29640

cccggcaatg gcaatggagg acccaccgct cgtacccgtg gatcatctgg gagctgaaca 29700

agtctatgtt ggcacagcac aggcatatgc tcatgcatct cttcagcact ctcaactcct 29760

cgggggtcaa aaccatatcc cagggcacgg ggaactcttg caggacagcg aaccccgcag 29820

aacagggcaa tcctcgcaca gaacttacat tgtgcatgga cagggtatcg caatcaggca 29880

gcaccgggtg atcctccacc agagaagcgc gggtctcggt ctcctcacag cgtggtaagg 29940

gggccggccg atacgggtga tggcgggacg cggctgatcg tgttcgcgac cgtgtcatga 30000

tgcagttgct ttcggacatt ttcgtacttg ctgtagcaga acctggtccg ggcgctgcac 30060

accgatcgcc ggcggcggtc tcggcgcttg gaacgctcgg tgttgaaatt gtaaaacagc 30120

cactctctca gaccgtgcag cagatctagg gcctcaggag tgatgaagat cccatcatgc 30180

ctgatggctc tgatcacatc gaccaccgtg gaatgggcca gacccagcca gatgatgcaa 30240

ttttgttggg tttcggtgac ggcgggggag ggaagaacag gaagaaccat gattaacttt 30300

taatccaaac ggtctcggag tacttcaaaa tgaagatcgc ggagatggca cctctcgccc 30360

ccgctgtgtt ggtggaaaat aacagccagg tcaaaggtga tacggttctc gagatgttcc 30420

acggtggctt ccagcaaagc ctccacgcgc acatccagaa acaagacaat agcgaaagcg 30480

ggagggttct ctaattcctc aatcatcatg ttacactcct gcaccatccc cagataattt 30540

tcatttttcc agccttgaat gattcgaact agttcgtgag gtaaatccaa gccagccatg 30600

ataaagagct cgcgcagagc gccctccacc ggcattctta agcacaccct cataattcca 30660

agatattctg ctcctggttc acctgcagca gattgacaag cggaatatca aaatctctgc 30720

cgcgatccct gagctcctcc ctcagcaata actgtaagta ctctttcata tcctctccga 30780

aatttttagc cataggacca ccaggaataa gattagggca agccacagta cagataaacc 30840

gaagtcctcc ccagtgagca ttgccaaatg caagactgct ataagcatgc tggctagacc 30900

cggtgatatc ttccagataa ctggacagaa aatcgcccag gcaattttta agaaaatcaa 30960

caaaagaaaa atcctccagg tggacgttta gagcctcggg aacaacgatg aagtaaatgc 31020

aagcggtgcg ttccagcatg gttagttagc tgatctgtag aaaaaacaaa aatgaacatt 31080

aaaccatgct agcctggcga acaggtgggt aaatcgttct ctccagcacc aggcaggcca 31140

cggggtctcc ggcgcgaccc tcgtaaaaat tgtcgctatg attgaaaacc atcacagaga 31200

gacgttcccg gtggccggcg tgaatgattc gacaagatga atacaccccc ggaacattgg 31260

cgtccgcgag tgaaaaaaag cgcccgagga agcaataagg cactacaatg ctcagtctca 31320

agtccagcaa agcgatgcca tgcggatgaa gcacaaaatt ctcaggtgcg tacaaaatgt 31380

aattactccc ctcctgcaca ggcagcaaag cccccgatcc ctccaggtac acatacaaag 31440

cctcagcgtc catagcttac cgagcagcag cacacaacag gcgcaagagt cagagaaagg 31500

ctgagctcta acctgtccac ccgctctctg ctcaatatat agcccagatc tacactgacg 31560

taaaggccaa agtctaaaaa tacccgccaa ataatcacac acgcccagca cacgcccaga 31620

aaccggtgac acactcaaaa aaatacgcgc acttcctcaa acgcccaaaa ctgccgtcat 31680

ttccgggttc ccacgctacg tcatcaaaac acgactttca aattccgtcg accgttaaaa 31740

acgtcacccg ccccgccccc aacggtcgcc cgtctctcag ccaatcagcg ccccgcatcc 31800

ccaaattcaa acacctcatt tgcatattaa cgcgcacaaa aagtttgagg tatattattg 31860

atgatgg 31867

<210> 12
<211> 32788
<212> DNA
<213> Artificial Sequence

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

<400> 12
ccatcttcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagtagg gataacaggg taatgacatt 600

gattattgac tagttgttaa tagtaatcaa ttacggggtc attagttcat agcccatata 660

tggagttccg cgttacataa cttacggtaa atggcccgcc tggctgaccg cccaacgacc 720

cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc 780

attgacgtca atgggtggag tatttacggt aaactgccca cttggcagta catcaagtgt 840

atcatatgcc aagtccgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt 900

atgcccagta catgacctta cgggactttc ctacttggca gtacatctac gtattagtca 960

tcgctattac catggtgatg cggttttggc agtacaccaa tgggcgtgga tagcggtttg 1020

actcacgggg atttccaagt ctccacccca ttgacgtcaa tgggagtttg ttttggcacc 1080

aaaatcaacg ggactttcca aaatgtcgta ataaccccgc cccgttgacg caaatgggcg 1140

gtaggcgtgt acggtgggag gtctatataa gcagagctcg tttagtgaac cgtcagatcg 1200

cctggaacgc catccacgct gttttgacct ccatagaaga cagcgatcgc gccaccatgg 1260

ccgggatgtt ccaggcactg tccgaaggct gcacacccta tgatattaac cagatgctga 1320

atgtcctggg agaccaccag gtctctggcc tggagcagct ggagagcatc atcaacttcg 1380

agaagctgac cgagtggaca agctccaatg tgatgcctat cctgtcccca ctgaccaagg 1440

gcatcctggg cttcgtgttt accctgacag tgccttctga gcggggcctg tcttgcatca 1500

gcgaggcaga cgcaaccaca ccagagtccg ccaatctggg cgaggagatc ctgtctcagc 1560

tgtacctgtg gccccgggtg acatatcact ccccttctta cgcctatcac cagttcgagc 1620

ggagagccaa gtacaagaga cacttcccag gctttggcca gtctctgctg ttcggctacc 1680

ccgtgtacgt gttcggcgat tgcgtgcagg gcgactggga tgccatccgg tttagatact 1740

gcgcaccacc tggatatgca ctgctgaggt gtaacgacac caattattcc gccctgctgg 1800

cagtgggcgc cctggagggc cctcgcaatc aggattggct gggcgtgcca aggcagctgg 1860

tgacacgcat gcaggccatc cagaacgcag gcctgtgcac cctggtggca atgctggagg 1920

agacaatctt ctggctgcag gcctttctga tggccctgac cgacagcggc cccaagacaa 1980

acatcatcgt ggattcccag tacgtgatgg gcatctccaa gccttctttc caggagtttg 2040

tggactggga gaacgtgagc ccagagctga attccaccga tcagccattc tggcaggcag 2100

gaatcctggc aaggaacctg gtgcctatgg tggccacagt gcagggccag aatctgaagt 2160

accagggcca gagcctggtc atcagcgcct ccatcatcgt gtttaacctg ctggagctgg 2220

agggcgacta tcgggacgat ggcaacgtgt gggtgcacac cccactgagc cccagaacac 2280

tgaacgcctg ggtgaaggcc gtggaggaga agaagggcat cccagtgcac ctggagctgg 2340

cctccatgac caatatggag ctgatgtcta gcatcgtgca ccagcaggtg aggacatacg 2400

gacccgtgtt catgtgcctg ggaggcctgc tgaccatggt ggcaggagcc gtgtggctga 2460

cagtgcgggt gctggagctg ttcagagccg cccagctggc caacgatgtg gtgctgcaga 2520

tcatggagct gtgcggagca gcctttcgcc aggtgtgcca caccacagtg ccatggccca 2580

atgcctccct gacccccaag tggaacaatg agacaacaca gcctcagatc gccaactgta 2640

gcgtgtacga cttcttcgtg tggctgcact actatagcgt gagggatacc ctgtggcccc 2700

gcgtgacata ccacatgaat aagtacgcct atcacatgct ggagaggcgc gccaagtata 2760

agagaggccc tggcccaggc gcaaagtttg tggcagcatg gaccctgaag gccgccgccg 2820

gccccggccc cggccagtat atcaaggcta acagtaagtt cattggaatc acagagctgg 2880

gacccggacc tggataatga gtttaaactc ccatttaaat gtgagggtta atgcttcgag 2940

cagacatgat aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa 3000

aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca 3060

ataaacaagt taacaacaac aattgcattc attttatgtt tcaggttcag ggggagatgt 3120

gggaggtttt ttaaagcaag taaaacctct acaaatgtgg taaaataact ataacggtcc 3180

taaggtagcg agtgagtagt gttctggggc gggggaggac ctgcatgagg gccagaataa 3240

ctgaaatctg tgcttttctg tgtgttgcag cagcatgagc ggaagcggct cctttgaggg 3300

aggggtattc agcccttatc tgacggggcg tctcccctcc tgggcgggag tgcgtcagaa 3360

tgtgatggga tccacggtgg acggccggcc cgtgcagccc gcgaactctt caaccctgac 3420

ctatgcaacc ctgagctctt cgtcgttgga cgcagctgcc gccgcagctg ctgcatctgc 3480

cgccagcgcc gtgcgcggaa tggccatggg cgccggctac tacggcactc tggtggccaa 3540

ctcgagttcc accaataatc ccgccagcct gaacgaggag aagctgttgc tgctgatggc 3600

ccagctcgag gccttgaccc agcgcctggg cgagctgacc cagcaggtgg ctcagctgca 3660

ggagcagacg cgggccgcgg ttgccacggt gaaatccaaa taaaaaatga atcaataaat 3720

aaacggagac ggttgttgat tttaacacag agtctgaatc tttatttgat ttttcgcgcg 3780

cggtaggccc tggaccaccg gtctcgatca ttgagcaccc ggtggatctt ttccaggacc 3840

cggtagaggt gggcttggat gttgaggtac atgggcatga gcccgtcccg ggggtggagg 3900

tagctccatt gcagggcctc gtgctcgggg gtggtgttgt aaatcaccca gtcatagcag 3960

gggcgcaggg catggtgttg cacaatatct ttgaggagga gactgatggc cacgggcagc 4020

cctttggtgt aggtgtttac aaatctgttg agctgggagg gatgcatgcg gggggagatg 4080

aggtgcatct tggcctggat cttgagattg gcgatgttac cgcccagatc ccgcctgggg 4140

ttcatgttgt gcaggaccac cagcacggtg tatccggtgc acttggggaa tttatcatgc 4200

aacttggaag ggaaggcgtg aaagaatttg gcgacgcctt tgtgcccgcc caggttttcc 4260

atgcactcat ccatgatgat ggcgatgggc ccgtgggcgg cggcctgggc aaagacgttt 4320

cgggggtcgg acacatcata gttgtggtcc tgggtgaggt catcataggc cattttaatg 4380

aatttggggc ggagggtgcc ggactggggg acaaaggtac cctcgatccc gggggcgtag 4440

ttcccctcac agatctgcat ctcccaggct ttgagctcgg agggggggat catgtccacc 4500

tgcggggcga taaagaacac ggtttccggg gcgggggaga tgagctgggc cgaaagcaag 4560

ttccggagca gctgggactt gccgcagccg gtggggccgt agatgacccc gatgaccggc 4620

tgcaggtggt agttgaggga gagacagctg ccgtcctccc ggaggagggg ggccacctcg 4680

ttcatcatct cgcgcacgtg catgttctcg cgcaccagtt ccgccaggag gcgctctccc 4740

cccagggata ggagctcctg gagcgaggcg aagtttttca gcggcttgag tccgtcggcc 4800

atgggcattt tggagagggt ttgttgcaag agttccaggc ggtcccagag ctcggtgatg 4860

tgctctacgg catctcgatc cagcagacct cctcgtttcg cgggttggga cggctgcggg 4920

agtagggcac cagacgatgg gcgtccagcg cagccagggt ccggtccttc cagggtcgca 4980

gcgtccgcgt cagggtggtc tccgtcacgg tgaaggggtg cgcgccgggc tgggcgcttg 5040

cgagggtgcg cttcaggctc atccggctgg tcgaaaaccg ctcccgatcg gcgccctgcg 5100

cgtcggccag gtagcaattg accatgagtt cgtagttgag cgcctcggcc gcgtggcctt 5160

tggcgcggag cttacctttg gaagtctgcc cgcaggcggg acagaggagg gacttgaggg 5220

cgtagagctt gggggcgagg aagacggact cgggggcgta ggcgtccgcg ccgcagtggg 5280

cgcagacggt ctcgcactcc acgagccagg tgaggtcggg ctggtcgggg tcaaaaacca 5340

gtttcccgcc gttctttttg atgcgtttct taccttggt ctccatgagc tcgtgtcccc 5400

gctgggtgac aaagaggctg tccgtgtccc cgtagaccga ctttatgggc cggtcctcga 5460

gcggtgtgcc gcggtcctcc tcgtagagga accccgccca ctccgagacg aaagcccggg 5520

tccaggccag cacgaaggag gccacgtggg acgggtagcg gtcgttgtcc accagcgggt 5580

ccacctttc cagggtatgc aaacacatgt ccccctcgtc cacatccagg aaggtgattg 5640

gcttgtaagt gtaggccacg tgaccggggg tcccggccgg gggggtataa aagggtgcgg 5700

gtccctgctc gtcctcactg tcttccggat cgctgtccag gagcgccagc tgttggggta 5760

ggtattccct ctcgaaggcg ggcatgacct cggcactcag gttgtcagtt tctagaaacg 5820

aggaggattt gatattgacg gtgccggcgg agatgccttt caagagcccc tcgtccatct 5880

ggtcagaaaa gacgatcttt ttgttgtcga gcttggtggc gaaggagccg tagagggcgt 5940

tggagaggag cttggcgatg gagcgcatgg tctggttttt ttccttgtcg gcgcgctcct 6000

tggcggcgat gttgagctgc acgtactcgc gcgccacgca cttccattcg gggaagacgg 6060

tggtcagctc gtcgggcacg attctgacct gccagccccg attatgcagg gtgatgaggt 6120

ccacactggt ggccacctcg ccgcgcaggg gctcattagt ccagcagagg cgtccgccct 6180

tgcgcgagca gaaggggggc aggggtcca gcatgacctc gtcgggggg tcggcatcga 6240

tggtgaagat gccgggcagg aggtcggggt caaagtagct gatggaagtg gccagatcgt 6300

ccagggcagc ttgccattcg cgcacggcca gcgcgctctc gtagggactg aggggcgtgc 6360

cccagggcat gggatgggta agcgcggagg cgtacatgcc gcagatgtcg tagacgtaga 6420

ggggctcctc gaggatgccg atgtaggtgg ggtagcagcg ccccccgcgg atgctggcgc 6480

gcacgtagtc atacagctcg tgcgaggggg cgaggagccc cgggcccagg ttggtgcgac 6540

tgggcttttc ggcgcggtag acgatctggc ggaaaatggc atgcgagttg gaggagatgg 6600

tgggcctttg gaagatgttg aagtgggcgt ggggcagtcc gaccgagtcg cggatgaagt 6660

gggcgtagga gtcttgcagc ttggcgacga gctcggcggt gactaggacg tccagagcgc 6720

agtagtcgag ggtctcctgg atgatgtcat acttgagctg tccctttgt ttccacagct 6780

cgcggttgag aaggaactct tcgcggtcct tccagtactc ttcgaggggg aacccgtcct 6840

gatctgcacg gtaagagcct agcatgtaga actggttgac ggccttgtag gcgcagcagc 6900

ccttctccac ggggagggcg taggcctggg cggccttgcg cagggaggtg tgcgtgaggg 6960

cgaaagtgtc cctgaccatg accttgagga actggtgctt gaagtcgata tcgtcgcagc 7020

ccccctgctc ccagagctgg aagtccgtgc gcttcttgta ggcggggttg ggcaaagcga 7080

aagtaacatc gttgaagagg atcttgcccg cgcggggcat aaagttgcga gtgatgcgga 7140

aaggttgggg cacctcggcc cggttgttga tgacctgggc ggcgagcacg atctcgtcga 7200

agccgttgat gttgtggccc acgatgtaga gttccacgaa tcgcggacgg cccttgacgt 7260

ggggcagttt cttgagctcc tcgtaggtga gctcgtcggg gtcgctgagc ccgtgctgct 7320

cgagcgccca gtcggcgaga tgggggttgg cgcggaggaa ggaagtccag agatccacgg 7380

ccagggcggt ttgcagacgg tcccggtact gacggaactg ctgcccgacg gccatttttt 7440

cgggggtgac gcagtagaag gtgcgggggt ccccgtgcca gcgatcccat ttgagctgga 7500

gggcgagatc gagggcgagc tcgacgagcc ggtcgtcccc ggagagtttc atgaccagca 7560

tgaaggggac gagctgcttg ccgaaggacc ccatccaggt gtaggtttcc acatcgtagg 7620

tgaggaagag cctttcggtg cgaggatgcg agccgatggg gaagaactgg atctcctgcc 7680

accaattgga ggaatggctg ttgatgtgat ggaagtagaa atgccgacgg cgcgccgaac 7740

actcgtgctt gtgtttatac aagcggccac agtgctcgca acgctgcacg ggatgcacgt 7800

gctgcacgag ctgtacctga gttcctttga cgaggaattt cagtgggaag tggagtcgtg 7860

gcgcctgcat ctcgtgctgt actacgtcgt ggtggtcggc ctggccctct tctgcctcga 7920

tggtggtcat gctgacgagc ccgcgcggga ggcaggtcca gacctcggcg cgagcgggtc 7980

ggagagcgag gacgagggcg cgcaggccgg agctgtccag ggtcctgaga cgctgcggag 8040

tcaggtcagt gggcagcggc ggcgcgcggt tgacttgcag gagtttttcc agggcgcgcg 8100

ggaggtccag atggtacttg atctccaccg cgccattggt ggcgacgtcg atggcttgca 8160

gggtcccgtg cccctggggt gtgaccaccg tcccccgttt cttcttgggc ggctggggcg 8220

acgggggcgg tgcctcttcc atggttagaa gcggcggcga ggacgcgcgc cgggcggcag 8280

gggcggctcg gggcccggag gcaggggcgg caggggcacg tcggcgccgc gcgcgggtag 8340

gttctggtac tgcgcccgga gaagactggc gtgagcgacg acgcgacggt tgacgtcctg 8400

gatctgacgc ctctgggtga aggccacggg acccgtgagt ttgaacctga aagagagttc 8460

gacagaatca atctcggtat cgttgacggc ggcctgccgc aggatctctt gcacgtcgcc 8520

cgagttgtcc tggtaggcga tctcggtcat gaactgctcg atctcctcct cttgaaggtc 8580

tccgcggccg gcgcgctcca cggtggccgc gaggtcgttg gagatgcggc ccatgagctg 8640

cgagaaggcg ttcatgcccg cctcgttcca gacgcggctg tagaccacga cgccctcggg 8700

atcgcgggcg cgcatgacca cctgggcgag gttgagctcc acgtggcgcg tgaagaccgc 8760

gtagttgcag aggcgctggt agaggtagtt gagcgtggtg gcgatgtgct cggtgacgaa 8820

gaaatacatg atccagcggc ggagcggcat ctcgctgacg tcgcccagcg cctccaaacg 8880

ttccatggcc tcgtaaaagt ccacggcgaa gttgaaaaac tgggagttgc gcgccgagac 8940

ggtcaactcc tcctccagaa gacggatgag ctcggcgatg gtggcgcgca cctcgcgctc 9000

gaaggccccc gggagttcct ccacttcctc ttcttcctcc tccactaaca tctcttctac 9060

ttcctcctca ggcggcagtg gtggcggggg agggggcctg cgtcgccggc ggcgcacggg 9120

cagacggtcg atgaagcgct cgatggtctc gccgcgccgg cgtcgcatgg tctcggtgac 9180

ggcgcgcccg tcctcgcggg gccgcagcgt gaagacgccg ccgcgcatct ccaggtggcc 9240

gggggggtcc ccgttgggca gggagagggc gctgacgatg catcttatca attgccccgt 9300

agggactccg cgcaaggacc tgagcgtctc gagatccacg ggatctgaaa accgctgaac 9360

gaaggcttcg agccagtcgc agtcgcaagg taggctgagc acggtttctt ctggcgggtc 9420

atgttggttg ggagcggggc gggcgatgct gctggtgatg aagttgaaat aggcggttct 9480

gagacggcgg atggtggcga ggagcaccag gtctttgggc ccggcttgct ggatgcgcag 9540

acggtcggcc atgccccagg cgtggtcctg acacctggcc aggtccttgt agtagtcctg 9600

catgagccgc tccacgggca cctcctcctc gcccgcgcgg ccgtgcatgc gcgtgagccc 9660

gaagccgcgc tggggctgga cgagcgccag gtcggcgacg acgcgctcgg cgaggatggc 9720

ttgctggatc tgggtgaggg tggtctggaa gtcatcaaag tcgacgaagc ggtggtaggc 9780

tccggtgttg atggtgtagg agcagttggc catgacggac cagttgacgg tctggtggcc 9840

cggacgcacg agctcgtggt acttgaggcg cgagtaggcg cgcgtgtcga agatgtagtc 9900

gttgcaggtg cgcaccaggt actggtagcc gatgaggaag tgcggcggcg gctggcggta 9960

gagcggccat cgctcggtgg cgggggcgcc gggcgcgagg tcctcgagca tggtgcggtg 10020

gtagccgtag atgtacctgg acatccaggt gatgccggcg gcggtggtgg aggcgcgcgg 10080

gaactcgcgg acgcggttcc agatgttgcg cagcggcagg aagtagttca tggtgggcac 10140

ggtctggccc gtgaggcgcg cgcagtcgtg gatgctctat acgggcaaaa acgaaagcgg 10200

tcagcggctc gactccgtgg cctggaggct aagcgaacgg gttgggctgc gcgtgtaccc 10260

cggttcgaat ctcgaatcag gctggagccg cagctaacgt ggtattggca ctcccgtctc 10320

gacccaagcc tgcaccaacc ctccaggata cggaggcggg tcgttttgca actttttttt 10380

ggaggccgga tgagactagt aagcgcggaa agcggccgac cgcgatggct cgctgccgta 10440

gtctggagaa gaatcgccag ggttgcgttg cggtgtgccc cggttcgagg ccggccggat 10500

tccgcggcta acgagggcgt ggctgccccg tcgtttccaa gaccccatag ccagccgact 10560

tctccagtta cggagcgagc ccctcttttg ttttgtttgt ttttgccaga tgcatcccgt 10620

actgcggcag atgcgccccc accaccctcc accgcaacaa cagccccctc cacagccggc 10680

gcttctgccc ccgccccagc agcaacttcc agccacgacc gccgcggccg ccgtgagcgg 10740

ggctggacag agttatgatc accagctggc cttggaagag ggcgaggggc tggcgcgcct 10800

gggggcgtcg tcgccggagc ggcacccgcg cgtgcagatg aaaagggacg ctcgcgaggc 10860

ctacgtgccc aagcagaacc tgttcagaga caggagcggc gaggagcccg aggagatgcg 10920

cgcggcccgg ttccacgcgg ggcgggagct gcggcgcggc ctggaccgaa agagggtgct 10980

gagggacgag gatttcgagg cggacgagct gacggggatc agccccgcgc gcgcgcacgt 11040

ggccgcggcc aacctggtca cggcgtacga gcagaccgtg aaggaggaga gcaacttcca 11100

aaaatccttc aacaaccacg tgcgcaccct gatcgcgcgc gaggaggtga ccctgggcct 11160

gatgcacctg tgggacctgc tggaggccat cgtgcagaac cccaccagca agccgctgac 11220

ggcgcagctg ttcctggtgg tgcagcatag tcgggacaac gaagcgttca gggaggcgct 11280

gctgaatatc accgagcccg agggccgctg gctcctggac ctggtgaaca ttctgcagag 11340

catcgtggtg caggagcgcg ggctgccgct gtccgagaag ctggcggcca tcaacttctc 11400

ggtgctgagt ttgggcaagt actacgctag gaagatctac aagaccccgt acgtgcccat 11460

agacaaggag gtgaagatcg acgggtttta catgcgcatg accctgaaag tgctgaccct 11520

gagcgacgat ctgggggtgt accgcaacga caggatgcac cgtgcggtga gcgccagcag 11580

gcggcgcgag ctgagcgacc aggagctgat gcatagtctg cagcgggccc tgaccggggc 11640

cgggaccgag ggggagagct actttgacat gggcgcggac ctgcactggc agcccagccg 11700

ccgggccttg gaggcggcgg caggacccta cgtagaagag gtggacgatg aggtggacga 11760

ggagggcgag tacctggaag actgatggcg cgaccgtatt tttgctagat gcaacaacaa 11820

cagccacctc ctgatcccgc gatgcgggcg gcgctgcaga gccagccgtc cggcattaac 11880

tcctcggacg attggaccca ggccatgcaa cgcatcatgg cgctgacgac ccgcaacccc 11940

gaagccttta gacagcagcc ccaggccaac cggctctcgg ccatcctgga ggccgtggtg 12000

ccctcgcgct ccaaccccac gcacgagaag gtcctggcca tcgtgaacgc gctggtggag 12060

aacaaggcca tccgcggcga cgaggccggc ctggtgtaca acgcgctgct ggagcgcgtg 12120

gcccgctaca acagcaccaa cgtgcagacc aacctggacc gcatggtgac cgacgtgcgc 12180

gaggccgtgg cccagcgcga gcggttccac cgcgagtcca acctgggatc catggtggcg 12240

ctgaacgcct tcctcagcac ccagcccgcc aacgtgcccc ggggccagga ggactacacc 12300

aacttcatca gcgccctgcg cctgatggtg accgaggtgc cccagagcga ggtgtaccag 12360

tccgggccgg actacttctt ccagaccagt cgccagggct tgcagaccgt gaacctgagc 12420

caggctttca agaacttgca gggcctgtgg ggcgtgcagg ccccggtcgg ggaccgcgcg 12480

acggtgtcga gcctgctgac gccgaactcg cgcctgctgc tgctgctggt ggccccccttc 12540

acggacagcg gcagcatcaa ccgcaactcg tacctgggct acctgattaa cctgtaccgc 12600

gaggccatcg gccaggcgca cgtggacgag cagacctacc aggagatcac ccacgtgagc 12660

cgcgccctgg gccaggacga cccgggcaac ctggaagcca ccctgaactt tttgctgacc 12720

aaccggtcgc agaagatccc gccccagtac gcgctcagca ccgaggagga gcgcatcctg 12780

cgttacgtgc agcagagcgt gggcctgttc ctgatgcagg agggggccac ccccagcgcc 12840

gcgctcgaca tgaccgcgcg caacatggag cccagcatgt acgccagcaa ccgcccgttc 12900

atcaataaac tgatggacta cttgcatcgg gcggccgcca tgaactctga ctatttcacc 12960

aacgccatcc tgaatcccca ctggctcccg ccgccggggt tctacacggg cgagtacgac 13020

atgcccgacc ccaatgacgg gttcctgtgg gacgatgtgg acagcagcgt gttctccccc 13080

cgaccgggtg ctaacgagcg ccccttgtgg aagaaggaag gcagcgaccg acgcccgtcc 13140

tcggcgctgt ccggccgcga gggtgctgcc gcggcggtgc ccgaggccgc cagtcctttc 13200

ccgagcttgc ccttctcgct gaacagtatc cgcagcagcg agctgggcag gatcacgcgc 13260

ccgcgcttgc tgggcgaaga ggagtacttg aatgactcgc tgttgagacc cgagcgggag 13320

aagaacttcc ccaataacgg gatagaaagc ctggtggaca agatgagccg ctggaagacg 13380

tatgcgcagg agcacaggga cgatccccgg gcgtcgcagg gggccacgag ccggggcagc 13440

gccgcccgta aacgccggtg gcacgacagg cagcggggac agatgtggga cgatgaggac 13500

tccgccgacg acagcagcgt gttggacttg ggtgggagtg gtaacccgtt cgctcacctg 13560

cgcccccgta tcgggcgcat gatgtaagag aaaccgaaaa taaatgatac tcaccaaggc 13620

catggcgacc agcgtgcgtt cgtttcttct ctgttgttgt tgtatctagt atgatgaggc 13680

gtgcgtaccc ggagggtcct cctccctcgt acgagagcgt gatgcagcag gcgatggcgg 13740

cggcggcgat gcagcccccg ctggaggctc cttacgtgcc cccgcggtac ctggcgccta 13800

cggaggggcg gaacagcatt cgttactcgg agctggcacc cttgtacgat accacccggt 13860

tgtacctggt ggacaacaag tcggcggaca tcgcctcgct gaactaccag aacgaccaca 13920

gcaacttcct gaccaccgtg gtgcagaaca atgacttcac ccccacggag gccagcaccc 13980

agaccatcaa ctttgacgag cgctcgcggt ggggcggcca gctgaaaacc atcatgcaca 14040

ccaacatgcc caacgtgaac gagttcatgt acagcaacaa gttcaaggcg cgggtgatgg 14100

tctcccgcaa gacccccaat ggggtgacag tgacagagga ttatgatggt agtcaggatg 14160

agctgaagta tgaatgggtg gaatttgagc tgcccgaagg caacttctcg gtgaccatga 14220

ccatcgacct gatgaacaac gccatcatcg acaattactt ggcggtgggg cggcagaacg 14280

gggtgctgga gagcgacatc ggcgtgaagt tcgacactag gaacttcagg ctgggctggg 14340

accccgtgac cgagctggtc atgcccgggg tgtacaccaa cgaggctttc catcccgata 14400

ttgtcttgct gcccggctgc ggggtggact tcaccgagag ccgcctcagc aacctgctgg 14460

gcattcgcaa gaggcagccc ttccaggaag gcttccagat catgtacgag gatctggagg 14520

ggggcaacat ccccgcgctc ctggatgtcg acgcctatga gaaaagcaag gaggatgcag 14580

cagctgaagc aactgcagcc gtagctaccg cctctaccga ggtcaggggc gataattttg 14640

caagcgccgc agcagtggca gcggccgagg cggctgaaac cgaaagtaag atagtcattc 14700

agccggtgga gaaggatagc aagaacagga gctacaacgt actaccggac aagataaaca 14760

ccgcctaccg cagctggtac ctagcctaca actatggcga ccccgagaag ggcgtgcgct 14820

cctggacgct gctcaccacc tcggacgtca cctgcggcgt ggagcaagtc tactggtcgc 14880

tgcccgacat gatgcaagac ccggtcacct tccgctccac gcgtcaagtt agcaactacc 14940

cggtggtggg cgccgagctc ctgcccgtct actccaagag cttcttcaac gagcaggccg 15000

tctactcgca gcagctgcgc gccttcacct cgcttacgca cgtcttcaac cgcttccccg 15060

agaaccagat cctcgtccgc ccgcccgcgc ccaccattac caccgtcagt gaaaacgttc 15120

ctgctctcac agatcacggg accctgccgc tgcgcagcag tatccgggga gtccagcgcg 15180

tgaccgttac tgacgccaga cgccgcacct gcccctacgt ctacaaggcc ctgggcatag 15240

tcgcgccgcg cgtcctctcg agccgcacct tctaaatgtc cattctcatc tcgcccagta 15300

ataacaccgg ttggggcctg cgcgcgccca gcaagatgta cggaggcgct cgccaacgct 15360

ccacgcaaca ccccgtgcgc gtgcgcgggc acttccgcgc tccctggggc gccctcaagg 15420

gccgcgtgcg gtcgcgcacc accgtcgacg acgtgatcga ccaggtggtg gccgacgcgc 15480

gcaactacac ccccgccgcc gcgcccgtct ccaccgtgga cgccgtcatc gacagcgtgg 15540

tggccgacgc gcgccggtac gcccgcgcca agagccggcg gcggcgcatc gcccggcggc 15600

accggagcac ccccgccatg cgcgcggcgc gagccttgct gcgcagggcc aggcgcacgg 15660

gacgcagggc catgctcagg gcggccagac gcgcggcttc aggcgccagc gccggcagga 15720

cccggagacg cgcggccacg gcggcggcag cggccatcgc cagcatgtcc cgcccgcggc 15780

gagggaacgt gtactgggtg cgcgacgccg ccaccggtgt gcgcgtgccc gtgcgcaccc 15840

gcccccctcg cacttgaaga tgttcacttc gcgatgttga tgtgtcccag cggcgaggag 15900

gatgtccaag cgcaaattca aggaagagat gctccaggtc atcgcgcctg agatctacgg 15960

ccctgcggtg gtgaaggagg aaagaaagcc ccgcaaaatc aagcgggtca aaaaggacaa 16020

aaaggaagaa gaaagtgatg tggacggatt ggtggagttt gtgcgcgagt tcgccccccg 16080

gcggcgcgtg cagtggcgcg ggcggaaggt gcaaccggtg ctgagacccg gcaccaccgt 16140

ggtcttcacg cccggcgagc gctccggcac cgcttccaag cgctcctacg acgaggtgta 16200

cggggatgat gatattctgg agcaggcggc cgagcgcctg ggcgagtttg cttacggcaa 16260

gcgcagccgt tccgcaccga aggaagaggc ggtgtccatc ccgctggacc acggcaaccc 16320

cacgccgagc ctcaagcccg tgaccttgca gcaggtgctg ccgaccgcgg cgccgcgccg 16380

ggggttcaag cgcgagggcg aggatctgta ccccaccatg cagctgatgg tgcccaagcg 16440

ccagaagctg gaagacgtgc tggagaccat gaaggtggac ccggacgtgc agcccgaggt 16500

caaggtgcgg cccatcaagc aggtggcccc gggcctgggc gtgcagaccg tggacatcaa 16560

gattcccacg gagcccatgg aaacgcagac cgagcccatg atcaagccca gcaccagcac 16620

catggaggtg cagacggatc cctggatgcc atcggctcct agtcgaagac cccggcgcaa 16680

gtacggcgcg gccagcctgc tgatgcccaa ctacgcgctg catccttcca tcatccccac 16740

gccgggctac cgcggcacgc gcttctaccg cggtcatacc agcagccgcc gccgcaagac 16800

caccactcgc cgccgccgtc gccgcaccgc cgctgcaacc acccctgccg ccctggtgcg 16860

gagagtgtac cgccgcggcc gcgcacctct gaccctgccg cgcgcgcgct accacccgag 16920

catcgccatt taaactttcg cctgctttgc agatcaatgg ccctcacatg ccgccttcgc 16980

gttcccatta cgggctaccg aggaagaaaa ccgcgccgta gaaggctggc ggggaacggg 17040

atgcgtcgcc accaccaccg gcggcggcgc gccatcagca agcggttggg gggaggcttc 17100

ctgcccgcgc tgatccccat catcgccgcg gcgatcgggg cgatccccgg cattgcttcc 17160

gtggcggtgc aggcctctca gcgccactga gacacacttg gaaacatctt gtaataaacc 17220

aatggactct gacgctcctg gtcctgtgat gtgttttcgt agacagatgg aagacatcaa 17280

tttttcgtcc ctggctccgc gacacggcac gcggccgttc atgggcacct ggagcgacat 17340

cggcaccagc caactgaacg ggggcgcctt caattggagc agtctctgga gcgggcttaa 17400

gaatttcggg tccacgctta aaacctatgg cagcaaggcg tggaacagca ccacagggca 17460

ggcgctgagg gataagctga aagagcagaa cttccagcag aaggtggtcg atgggctcgc 17520

ctcgggcatc aacggggtgg tggacctggc caaccaggcc gtgcagcggc agatcaacag 17580

ccgcctggac ccggtgccgc ccgccggctc cgtggagatg ccgcaggtgg aggaggagct 17640

gcctcccctg gacaagcggg gcgagaagcg accccgcccc gatgcggagg agacgctgct 17700

gacgcacacg gacgagccgc ccccgtacga ggaggcggtg aaactgggtc tgcccaccac 17760

gcggcccatc gcgcccctgg ccaccggggt gctgaaaccc gaaaagcccg cgaccctgga 17820

cttgcctcct ccccagcctt cccgcccctc tacagtggct aagcccctgc cgccggtggc 17880

cgtggcccgc gcgcgacccg ggggcaccgc ccgccctcat gcgaactggc agagcactct 17940

gaacagcatc gtgggtctgg gagtgcagag tgtgaagcgc cgccgctgct attaaaccta 18000

ccgtagcgct taacttgctt gtctgtgtgt gtatgtatta tgtcgccgcc gccgctgtcc 18060

accagaagga ggagtgaaga ggcgcgtcgc cgagttgcaa gatggccacc ccatcgatgc 18120

tgccccagtg ggcgtacatg cacatcgccg gacaggacgc ttcggagtac ctgagtccgg 18180

gtctggtgca gtttgcccgc gccacagaca cctacttcag tctggggaac aagtttagga 18240

accccacggt ggcgcccacg cacgatgtga ccaccgaccg cagccagcgg ctgacgctgc 18300

gcttcgtgcc cgtggaccgc gaggacaaca cctactcgta caaagtgcgc tacacgctgg 18360

ccgtgggcga caaccgcgtg ctggacatgg ccagcaccta ctttgacatc cgcggcgtgc 18420

tggatcgggg ccctagcttc aaaccctact ccggcaccgc ctacaacagt ctggccccca 18480

agggagcacc caacacttgt cagtggacat ataaagccga tggtgaaact gccacagaaa 18540

aaacctatac atatggaaat gcacccgtgc agggcattaa catcacaaaa gatggtattc 18600

aacttggaac tgacaccgat gatcagccaa tctacgcaga taaaacctat cagcctgaac 18660

ctcaagtggg tgatgctgaa tggcatgaca tcactggtac tgatgaaaag tatggaggca 18720

gagctcttaa gcctgatacc aaaatgaagc cttgttatgg ttcttttgcc aagcctacta 18780

ataaagaagg aggtcaggca aatgtgaaaa caggaacagg cactactaaa gaatatgaca 18840

tagacatggc tttctttgac aacagaagtg cggctgctgc tggcctagct ccagaaattg 18900

ttttgtatac tgaaaatgtg gatttggaaa ctccagatac ccatattgta tacaaagcag 18960

gcacagatga cagcagctct tctattaatt tgggtcagca agccatgccc aacagaccta 19020

actacattgg tttcagagac aactttatcg ggctcatgta ctacaacagc actggcaata 19080

tgggggtgct ggccggtcag gcttctcagc tgaatgctgt ggttgacttg caagacagaa 19140

acaccgagct gtcctaccag ctcttgcttg actctctggg tgacagaacc cggtatttca 19200

gtatgtggaa tcaggcggtg gacagctatg atcctgatgt gcgcattatt gaaaatcatg 19260

gtgtggagga tgaacttccc aactattgtt tccctctgga tgctgttggc agaacagata 19320

cttatcaggg aattaaggct aatggaactg atcaaaccac atggaccaaa gatgacagtg 19380

tcaatgatgc taatgagata ggcaagggta atccattcgc catggaaatc aacatccaag 19440

ccaacctgtg gaggaacttc ctctacgcca acgtggccct gtacctgccc gactcttaca 19500

agtacacgcc ggccaatgtt accctgccca ccaacaccaa cacctacgat tacatgaacg 19560

gccgggtggt ggcgccctcg ctggtggact cctacatcaa catcggggcg cgctggtcgc 19620

tggatcccat ggacaacgtg aaccccttca accaccaccg caatgcgggg ctgcgctacc 19680

gctccatgct cctgggcaac gggcgctacg tgcccttcca catccaggtg ccccagaaat 19740

ttttcgccat caagagcctc ctgctcctgc ccgggtccta cacctacgag tggaacttcc 19800

gcaaggacgt caacatgatc ctgcagagct ccctcggcaa cgacctgcgc acggacgggg 19860

cctccatctc cttcaccagc atcaacctct acgccacctt cttccccatg gcgcacaaca 19920

cggcctccac gctcgaggcc atgctgcgca acgacaccaa cgaccagtcc ttcaacgact 19980

acctctcggc ggccaacatg ctctacccca tcccggccaa cgccaccaac gtgcccatct 20040

ccatcccctc gcgcaactgg gccgccttcc gcggctggtc cttcacgcgt ctcaagacca 20100

aggagacgcc ctcgctgggc tccgggttcg acccctactt cgtctactcg ggctccatcc 20160

cctacctcga cggcaccttc tacctcaacc acaccttcaa gaaggtctcc atcaccttcg 20220

actcctccgt cagctggccc ggcaacgacc ggctcctgac gcccaacgag ttcgaaatca 20280

agcgcaccgt cgacggcgag ggctacaacg tggcccagtg caacatgacc aaggactggt 20340

tcctggtcca gatgctggcc cactacaaca tcggctacca gggcttctac gtgcccgagg 20400

gctacaagga ccgcatgtac tccttcttcc gcaacttcca gcccatgagc cgccaggtgg 20460

tggacgaggt caactacaag gactaccagg ccgtcaccct ggcctaccag cacaacaact 20520

cgggcttcgt cggctacctc gcgcccacca tgcgccaggg ccagccctac cccgccaact 20580

acccctaccc gctcatcggc aagagcgccg tcaccagcgt cacccagaaa aagttcctct 20640

gcgacagggt catgtggcgc atccccttct ccagcaactt catgtccatg ggcgcgctca 20700

ccgacctcgg ccagaacatg ctctatgcca actccgccca cgcgctagac atgaatttcg 20760

aagtcgaccc catggatgag tccacccttc tctatgttgt cttcgaagtc ttcgacgtcg 20820

tccgagtgca ccagccccac cgcggcgtca tcgaggccgt ctacctgcgc acccccttct 20880

cggccggtaa cgccaccacc taagctcttg cttcttgcaa gccatggccg cgggctccgg 20940

cgagcaggag ctcagggcca tcatccgcga cctgggctgc gggccctact tcctgggcac 21000

cttcgataag cgcttcccgg gattcatggc cccgcacaag ctggcctgcg ccatcgtcaa 21060

cacggccggc cgcgagaccg ggggcgagca ctggctggcc ttcgcctgga acccgcgctc 21120

gaacacctgc tacctcttcg acccccttcgg gttctcggac gagcgcctca agcagatcta 21180

ccagttcgag tacgagggcc tgctgcgccg cagcgccctg gccaccgagg accgctgcgt 21240

caccctggaa aagtccaccc agaccgtgca gggtccgcgc tcggccgcct gcgggctctt 21300

ctgctgcatg ttcctgcacg ccttcgtgca ctggcccgac cgccccatgg acaagaaccc 21360

caccatgaac ttgctgacgg gggtgcccaa cggcatgctc cagtcgcccc aggtggaacc 21420

caccctgcgc cgcaaccagg aggcgctcta ccgcttcctc aactcccact ccgcctactt 21480

tcgctcccac cgcgcgcgca tcgagaaggc caccgccttc gaccgcatga atcaagacat 21540

gtaaaccgtg tgtgtatgtt aaatgtcttt aataaacagc actttcatgt tacacatgca 21600

tctgagatga tttatttaga aatcgaaagg gttctgccgg gtctcggcat ggcccgcggg 21660

cagggacacg ttgcggaact ggtacttggc cagccacttg aactcgggga tcagcagttt 21720

gggcagcggg gtgtcgggga aggagtcggt ccacagcttc cgcgtcagtt gcagggcgcc 21780

cagcaggtcg ggcgcggaga tcttgaaatc gcagttggga cccgcgttct gcgcgcggga 21840

gttgcggtac acggggttgc agcactggaa caccatcagg gccgggtgct tcacgctcgc 21900

cagcaccgtc gcgtcggtga tgctctccac gtcgaggtcc tcggcgttgg ccatcccgaa 21960

gggggtcatc ttgcaggtct gccttcccat ggtgggcacg cacccgggct tgtggttgca 22020

atcgcagtgc agggggatca gcatcatctg ggcctggtcg gcgttcatcc ccgggtacat 22080

ggccttcatg aaagcctcca attgcctgaa cgcctgctgg gccttggctc cctcggtgaa 22140

gaagaccccg caggacttgc tagagaactg gttggtggcg cacccggcgt cgtgcacgca 22200

gcagcgcgcg tcgttgttgg ccagctgcac cacgctgcgc ccccagcggt tctgggtgat 22260

cttggcccgg tcggggttct ccttcagcgc gcgctgcccg ttctcgctcg ccacatccat 22320

ctcgatcatg tgctccttct ggatcatggt ggtcccgtgc aggcaccgca gcttgccctc 22380

ggcctcggtg cacccgtgca gccacagcgc gcacccggtg cactcccagt tcttgtgggc 22440

gatctgggaa tgcgcgtgca cgaagccctg caggaagcgg cccatcatgg tggtcagggt 22500

cttgttgcta gtgaaggtca gcggaatgcc gcggtgctcc tcgttgatgt acaggtggca 22560

gatgcggcgg tacacctcgc cctgctcggg catcagctgg aagttggctt tcaggtcggt 22620

ctccacgcgg tagcggtcca tcagcatagt catgatttcc ataccttct cccaggccga 22680

gacgatgggc aggctcatag ggttcttcac catcatctta gcgctagcag ccgcggccag 22740

ggggtcgctc tcgtccaggg tctcaaagct ccgcttgccg tccttctcgg tgatccgcac 22800

cgggggggtag ctgaagccca cggccgccag ctcctcctcg gcctgtcttt cgtcctcgct 22860

gtcctggctg acgtcctgca ggaccacatg cttggtcttg cggggtttct tcttgggcgg 22920

cagcggcggc ggagatgttg gagatggcga gggggagcgc gagttctcgc tcaccactac 22980

tatctcttcc tcttcttggt ccgaggccac gcggcggtag gtatgtctct tcgggggcag 23040

aggcggaggc gacgggctct cgccgccgcg acttggcgga tggctggcag agcccccttcc 23100

gcgttcgggg gtgcgctccc ggcggcgctc tgactgactt cctccgcggc cggccattgt 23160

gttctcctag ggaggaacaa caagcatgga gactcagcca tcgccaacct cgccatctgc 23220

ccccaccgcc gacgagaagc agcagcagca gaatgaaagc ttaaccgccc cgccgcccag 23280

ccccgccacc tccgacgcgg ccgtcccaga catgcaagag atggaggaat ccatcgagat 23340

tgacctgggc tatgtgacgc ccgcggagca cgaggaggag ctggcagtgc gcttttcaca 23400

agaagagata caccaagaac agccagagca ggaagcagag aatgagcaga gtcaggctgg 23460

gctcgagcat gacggcgact acctccacct gagcgggggg gaggacgcgc tcatcaagca 23520

tctggcccgg caggccacca tcgtcaagga tgcgctgctc gaccgcaccg aggtgcccct 23580

cagcgtggag gagctcagcc gcgcctacga gttgaacctc ttctcgccgc gcgtgccccc 23640

caagcgccag cccaatggca cctgcgagcc caacccgcgc ctcaacttct acccggtctt 23700

cgcggtgccc gaggccctgg ccacctacca catcttttttc aagaaccaaa agatccccgt 23760

ctcctgccgc gccaaccgca cccgcgccga cgccctttc aacctgggtc ccggcgcccg 23820

cctacctgat atcgcctcct tggaagaggt tcccaagatc ttcgagggtc tgggcagcga 23880

cgagactcgg gccgcgaacg ctctgcaagg agaaggagga gagcatgagc accacagcgc 23940

cctggtcgag ttggaaggcg acaacgcgcg gctggcggtg ctcaaacgca cggtcgagct 24000

gacccatttc gcctacccgg ctctgaacct gccccccaaa gtcatgagcg cggtcatgga 24060

ccaggtgctc atcaagcgcg cgtcgcccat ctccgaggac gagggcatgc aagactccga 24120

ggagggcaag cccgtggtca gcgacgagca gctggcccgg tggctgggtc ctaatgctag 24180

tccccagagt ttggaagagc ggcgcaaact catgatggcc gtggtcctgg tgaccgtgga 24240

gctggagtgc ctgcgccgct tcttcgccga cgcggagacc ctgcgcaagg tcgaggagaa 24300

cctgcactac ctcttcaggc acgggttcgt gcgccaggcc tgcaagatct ccaacgtgga 24360

gctgaccaac ctggtctcct acatgggcat cttgcacgag aaccgcctgg ggcagaacgt 24420

gctgcacacc accctgcgcg gggaggcccg gcgcgactac atccgcgact gcgtctacct 24480

ctacctctgc cacacctggc agacgggcat gggcgtgtgg cagcagtgtc tggaggagca 24540

gaacctgaaa gagctctgca agctcctgca gaagaacctc aagggtctgt ggaccgggtt 24600

cgacgagcgc accaccgcct cggacctggc cgacctcatt ttccccgagc gcctcaggct 24660

gacgctgcgc aacggcctgc ccgactttat gagccaaagc atgttgcaaa actttcgctc 24720

tttcatcctc gaacgctccg gaatcctgcc cgccacctgc tccgcgctgc cctcggactt 24780

cgtgccgctg accttccgcg agtgcccccc gccgctgtgg agccactgct acctgctgcg 24840

cctggccaac tacctggcct accactcgga cgtgatcgag gacgtcagcg gcgagggcct 24900

gctcgagtgc cactgccgct gcaacctctg cacgccgcac cgctccctgg cctgcaaccc 24960

ccagctgctg agcgagaccc agatcatcgg caccttcgag ttgcaagggc ccagcgaagg 25020

cgagggttca gccgccaagg ggggtctgaa actcaccccg gggctgtgga cctcggccta 25080

cttgcgcaag ttcgtgcccg aggactacca tcccttcgag atcaggttct acgaggacca 25140

atcccatccg cccaaggccg agctgtcggc ctgcgtcatc acccaggggg cgatcctggc 25200

ccaattgcaa gccatccaga aatcccgcca agaattcttg ctgaaaaagg gccgcggggt 25260

ctacctcgac ccccagaccg gtgaggagct caaccccggc ttcccccagg atgccccgag 25320

gaaacaagaa gctgaaagtg gagctgccgc ccgtggagga tttggaggaa gactgggaga 25380

acagcagtca ggcagaggag gaggagatgg aggaagactg ggacagcact caggcagagg 25440

aggacagcct gcaagacagt ctggaggaag acgaggagga ggcagaggag gaggtggaag 25500

aagcagccgc cgccagaccg tcgtcctcgg cgggggagaa agcaagcagc acggatacca 25560

tctccgctcc gggtcggggt cccgctcgac cacacagtag atgggacgag accggacgat 25620

tcccgaaccc caccacccag accggtaaga aggagcggca gggatacaag tcctggcggg 25680

ggcacaaaaa cgccatcgtc tcctgcttgc aggcctgcgg gggcaacatc tccttcaccc 25740

ggcgctacct gctcttccac cgcggggtga actttccccg caacatcttg cattactacc 25800

gtcacctcca cagcccctac tacttccaag aagaggcagc agcagcagaa aaagaccagc 25860

agaaaaccag cagctagaaa atccacagcg gcggcagcag gtggactgag gatcgcggcg 25920

aacgagccgg cgcaaacccg ggagctgagg aaccggatct ttcccaccct ctatgccatc 25980

ttccagcaga gtcgggggca ggagcaggaa ctgaaagtca agaaccgttc tctgcgctcg 26040

ctcacccgca gttgtctgta tcacaagagc gaagaccaac ttcagcgcac tctcgaggac 26100

gccgaggctc tcttcaacaa gtactgcgcg ctcactctta aagagtagcc cgcgcccgcc 26160

cagtcgcaga aaaaggcggg aattacgtca cctgtgccct tcgccctagc cgcctccacc 26220

catcatcatg agcaaagaga ttcccacgcc ttacatgtgg agctaccagc cccagatggg 26280

cctggccgcc ggtgccgccc aggactactc cacccgcatg aattggctca gcgccgggcc 26340

cgcgatgatc tcacgggtga atgacatccg cgcccaccga aaccagatac tcctagaaca 26400

gtcagcgctc accgccacgc cccgcaatca cctcaatccg cgtaattggc ccgccgccct 26460

ggtgtaccag gaaattcccc agcccacgac cgtactactt ccgcgagacg cccaggccga 26520

agtccagctg actaactcag gtgtccagct ggcgggcggc gccaccctgt gtcgtcaccg 26580

ccccgctcag ggtataaagc ggctggtgat ccggggcaga ggcacacagc tcaacgacga 26640

ggtggtgagc tcttcgctgg gtctgcgacc tgacggagtc ttccaactcg ccggatcggg 26700

gagatcttcc ttcacgcctc gtcaggccgt cctgactttg gagagttcgt cctcgcagcc 26760

ccgctcgggt ggcatcggca ctctccagtt cgtggaggag ttcactccct cggtctactt 26820

caaccccttc tccggctccc ccggccacta cccggacgag ttcatcccga acttcgacgc 26880

catcagcgag tcggtggacg gctacgattg aatgtcccat ggtggcgcag ctgacctagc 26940

tcggcttcga cacctggacc actgccgccg cttccgctgc ttcgctcggg atctcgccga 27000

gtttgcctac tttgagctgc ccgaggagca ccctcagggc ccggcccacg gagtgcggat 27060

cgtcgtcgaa gggggcctcg actcccacct gcttcggatc ttcagccagc gtccgatcct 27120

ggtcgagcgc gagcaaggac agacccttct gactctgtac tgcatctgca accaccccgg 27180

cctgcatgaa agtctttgtt gtctgctgtg tactgagtat aataaaagct gagatcagcg 27240

actactccgg acttccgtgt gttcctgaat ccatcaacca gtctttgttc ttcaccggga 27300

acgagaccga gctccagctc cagtgtaagc cccacaagaa gtacctcacc tggctgttcc 27360

agggctcccc gatcgccgtt gtcaaccact gcgacaacga cggagtcctg ctgagcggcc 27420

ctgccaacct tacttttcc acccgcagaa gcaagctcca gctcttccaa cccttcctcc 27480

ccgggaccta tcagtgcgtc tcgggaccct gccatcacac cttccacctg atcccgaata 27540

ccacagcgtc gctccccgct actaacaacc aaactaacct ccaccaacgc caccgtcgcg 27600

acggccacaa tacatgccca tattagacta tgaggccgag ccacagcgac ccatgctccc 27660

cgctattagt tacttcaatc taaccggcgg agatgactga cccactggcc aacaacaacg 27720

tcaacgacct tctcctggac atggacggcc gcgcctcgga gcagcgactc gcccaacttc 27780

gcattcgcca gcagcaggag agagccgtca aggagctgca ggatgcggtg gccatccacc 27840

agtgcaagag aggcatcttc tgcctggtga aacaggccaa gatctcctac gaggtcactc 27900

caaacgacca tcgcctctcc tacgagctcc tgcagcagcg ccagaagttc acctgcctgg 27960

tcggagtcaa ccccatcgtc atcacccagc agtctggcga taccaagggg tgcatccact 28020

gctcctgcga ctcccccgac tgcgtccaca ctctgatcaa gaccctctgc ggcctccgcg 28080

acctcctccc catgaactaa tcacccccctt atccagtgaa ataaagatca tattgatgat 28140

gattttacag aaataaaaaa taatcatttg atttgaaata aagatacaat catattgatg 28200

atttgagttt aacaaaaaaa taaagaatca cttacttgaa atctgatacc aggtctctgt 28260

ccatgttttc tgccaacacc acttcactcc cctcttccca gctctggtac tgcaggcccc 28320

ggcgggctgc aaacttcctc cacacgctga aggggatgtc aaattcctcc tgtccctcaa 28380

tcttcatttt atcttctatc agatgtccaa aaagcgcgtc cgggtggatg atgacttcga 28440

ccccgtctac ccctacgatg cagacaacgc accgaccgtg cccttcatca acccccccctt 28500

cgtctcttca gatggattcc aagagaagcc cctgggggtg ttgtccctgc gactggccga 28560

ccccgtcacc accaagaacg gggaaatcac cctcaagctg ggagaggggg tggacctcga 28620

ttcctcggga aaactcatct ccaacacggc caccaaggcc gccgcccctc tcagtttttc 28680

caacaacacc atttccctta acatggatca ccccttttac actaaagatg gaaaattatc 28740

cttacaagtt tctccaccat taaatatact gagaacaagc attctaaaca cactagcttt 28800

aggttttgga tcaggtttag gactccgtgg ctctgccttg gcagtacagt tagtctctcc 28860

acttacattt gatactgatg gaaacataaa gcttacctta gacagaggtt tgcatgttac 28920

aacaggagat gcaattgaaa gcaacataag ctgggctaaa ggtttaaaat ttgaagatgg 28980

agccatagca accaacattg gaaatgggtt agagtttgga agcagtagta cagaaacagg 29040

tgttgatgat gcttacccaa tccaagttaa acttggatct ggccttagct ttgacagtac 29100

aggagccata atggctggta acaaagaaga cgataaactc actttgtgga caacacctga 29160

tccatcacca aactgtcaaa tactcgcaga aaatgatgca aaactaacac tttgcttgac 29220

taaatgtggt agtcaaatac tggccactgt gtcagtctta gttgtaggaa gtggaaacct 29280

aaaccccatt actggcaccg taagcagtgc tcaggtgttt ctacgttttg atgcaaacgg 29340

tgttctttta acagaacatt ctacactaaa aaaatactgg gggtataggc agggagatag 29400

catagatggc actccatata ccaatgctgt aggattcatg cccaatttaa aagcttatcc 29460

aaagtcacaa agttctacta ctaaaaataa tatagtaggg caagtataca tgaatggaga 29520

tgtttcaaaa cctatgcttc tcactataac cctcaatggt actgatgaca gcaacagtac 29580

atattcaatg tcattttcat acacctggac taatggaagc tatgttggag caacatttgg 29640

ggctaactct tataccttct catacatcgc ccaagaatga acactgtatc ccaccctgca 29700

tgccaaccct tcccacccca ctctgtggaa caaactctga aacacaaaat aaaataaagt 29760

tcaagtgttt tattgattca acagttttac aggattcgag cagttatttt tcctccaccc 29820

tcccaggaca tggaatacac caccctctcc ccccgcacag ccttgaacat ctgaatgcca 29880

ttggtgatgg acatgctttt ggtctccacg ttccacacag tttcagagcg agccagtctc 29940

gggtcggtca gggagatgaa accctccggg cactcccgca tctgcacctc acagctcaac 30000

agctgaggat tgtcctcggt ggtcgggatc acggttatct ggaagaagca gaagagcggc 30060

ggtgggaatc atagtccgcg aacgggatcg gccggtggtg tcgcatcagg ccccgcagca 30120

gtcgctgccg ccgccgctcc gtcaagctgc tgctcagggg gtccgggtcc agggactccc 30180

tcagcatgat gcccacggcc ctcagcatca gtcgtctggt gcggcgggcg cagcagcgca 30240

tgcggatctc gctcaggtcg ctgcagtacg tgcaacacag aaccaccagg ttgttcaaca 30300

gtccatagtt caacacgctc cagccgaaac tcatcgcggg aaggatgcta cccacgtggc 30360

cgtcgtacca gatcctcagg taaatcaagt ggtgcccccc ccagaacacg ctgcccacgt 30420

acatgatctc cttgggcatg tggcggttca ccacctcccg gtaccacatc accctctggt 30480

tgaacatgca gccccggatg atcctgcgga accacagggc cagcaccgcc ccgcccgcca 30540

tgcagcgaag agaccccggg tcccggcaat ggcaatggag gacccaccgc tcgtacccgt 30600

ggatcatctg ggagctgaac aagtctatgt tggcacagca caggcatatg ctcatgcatc 30660

tcttcagcac tctcaactcc tcgggggtca aaaccatatc ccagggcacg gggaactctt 30720

gcaggacagc gaaccccgca gaacagggca atcctcgcac agaacttaca ttgtgcatgg 30780

acagggtatc gcaatcaggc agcaccgggt gatcctccac cagagaagcg cgggtctcgg 30840

tctcctcaca gcgtggtaag ggggccggcc gatacgggtg atggcgggac gcggctgatc 30900

gtgttcgcga ccgtgtcatg atgcagttgc tttcggacat tttcgtactt gctgtagcag 30960

aacctggtcc gggcgctgca caccgatcgc cggcggcggt ctcggcgctt ggaacgctcg 31020

gtgttgaaat tgtaaaacag ccactctctc agaccgtgca gcagatctag ggcctcagga 31080

gtgatgaaga tcccatcatg cctgatggct ctgatcacat cgaccaccgt ggaatgggcc 31140

agacccagcc agatgatgca attttgttgg gtttcggtga cggcggggga gggaagaaca 31200

ggaagaacca tgattaactt ttaatccaaa cggtctcgga gtacttcaaa atgaagatcg 31260

cggagatggc acctctcgcc cccgctgtgt tggtggaaaa taacagccag gtcaaaggtg 31320

atacggttct cgagatgttc cacggtggct tccagcaaag cctccacgcg cacatccaga 31380

aacaagacaa tagcgaaagc gggagggttc tctaattcct caatcatcat gttacactcc 31440

tgcaccatcc ccagataatt ttcatttttc cagccttgaa tgattcgaac tagttcgtga 31500

ggtaaatcca agccagccat gataaagagc tcgcgcagag cgccctccac cggcattctt 31560

aagcacaccc tcataattcc aagatattct gctcctggtt cacctgcagc agattgacaa 31620

gcggaatatc aaaatctctg ccgcgatccc tgagctcctc cctcagcaat aactgtaagt 31680

actctttcat atcctctccg aaatttttag ccataggacc accaggaata agattagggc 31740

aagccacagt acagataaac cgaagtcctc cccagtgagc attgccaaat gcaagactgc 31800

tataagcatg ctggctagac ccggtgatat cttccagata actggacaga aaatcgccca 31860

ggcaattttt aagaaaatca acaaaagaaa aatcctccag gtggacgttt agagcctcgg 31920

gaacaacgat gaagtaaatg caagcggtgc gttccagcat ggttagttag ctgatctgta 31980

gaaaaaacaa aaatgaacat taaaccatgc tagcctggcg aacaggtggg taaatcgttc 32040

tctccagcac caggcaggcc acggggtctc cggcgcgacc ctcgtaaaaa ttgtcgctat 32100

gattgaaaac catcacagag agacgttccc ggtggccggc gtgaatgatt cgacaagatg 32160

aatacacccc cggaacattg gcgtccgcga gtgaaaaaaa gcgcccgagg aagcaataag 32220

gcactacaat gctcagtctc aagtccagca aagcgatgcc atgcggatga agcacaaaat 32280

tctcaggtgc gtacaaaatg taattactcc cctcctgcac aggcagcaaa gcccccgatc 32340

cctccaggta cacatacaaa gcctcagcgt ccatagctta ccgagcagca gcacacaaca 32400

ggcgcaagag tcagagaaag gctgagctct aacctgtcca cccgctctct gctcaatata 32460

tagcccagat ctacactgac gtaaaggcca aagtctaaaa atacccgcca aataatcaca 32520

cacgcccagc acacgcccag aaaccggtga cacactcaaa aaaatacgcg cacttcctca 32580

aacgcccaaa actgccgtca tttccgggtt cccacgctac gtcatcaaaa cacgactttc 32640

aaattccgtc gaccgttaaa aacgtcaccc gccccgcccc taacggtcgc ccgtctctca 32700

gccaatcagc gccccgcatc cccaaattca aacacctcat ttgcatatta acgcgcacaa 32760

aaagtttgag gtatattatt gatgatgg 32788

<210> 13
<211> 30684
<212> DNA
<213> Artificial Sequence

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

<400> 13
ccatcttcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagtagg gataacaggg taatgacatt 600

gattattgac tagttgttaa tagtaatcaa ttacggggtc attagttcat agcccatata 660

tggagttccg cgttacataa cttacggtaa atggcccgcc tggctgaccg cccaacgacc 720

cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc 780

attgacgtca atgggtggag tatttacggt aaactgccca cttggcagta catcaagtgt 840

atcatatgcc aagtccgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt 900

atgcccagta catgacctta cgggactttc ctacttggca gtacatctac gtattagtca 960

tcgctattac catggtgatg cggttttggc agtacaccaa tgggcgtgga tagcggtttg 1020

actcacgggg atttccaagt ctccacccca ttgacgtcaa tgggagtttg ttttggcacc 1080

aaaatcaacg ggactttcca aaatgtcgta ataaccccgc cccgttgacg caaatgggcg 1140

gtaggcgtgt acggtgggag gtctatataa gcagagctcg tttagtgaac cgtcagatcg 1200

cctggaacgc catccacgct gttttgacct ccatagaaga cagcgatcgc gccaccatgg 1260

tgagcaaggg cgaggagctg ttcaccgggg tggtgcccat cctggtcgag ctggacggcg 1320

acgtaaacgg ccacaagttc agcgtgtccg gcgagggcga gggcgatgcc acctacggca 1380

agctgaccct gaagttcatc tgcaccaccg gcaagctgcc cgtgccctgg cccaccctcg 1440

tgaccaccct gacctacggc gtgcagtgct tcagccgcta ccccgaccac atgaagcagc 1500

acgacttctt caagtccgcc atgcccgaag gctacgtcca ggagcgcacc atcttcttca 1560

aggacgacgg caactacaag acccgcgccg aggtgaagtt cgagggcgac accctggtga 1620

accgcatcga gctgaagggc atcgacttca aggaggacgg caacatcctg gggcacaagc 1680

tggagtacaa ctacaacagc cacaacgtct atatcatggc cgacaagcag aagaacggca 1740

tcaaggtgaa cttcaagatc cgccacaaca tcgaggacgg cagcgtgcag ctcgccgacc 1800

actaccagca gaacaccccc atcggcgacg gccccgtgct gctgcccgac aaccactacc 1860

tgagcaccca gtccgccctg agcaaagacc ccaacgagaa gcgcgatcac atggtcctgc 1920

tggagttcgt gaccgccgcc gggatcactc tcggcatgga cgagctttac aagtagtgag 1980

tttaaactcc catttaaatg tgagggttaa tgcttcgagc agacatgata agatacattg 2040

atgagtttgg acaaaccaca actagaatgc agtgaaaaaa atgctttatt tgtgaaattt 2100

gtgatgctat tgctttattt gtaaccatta taagctgcaa taaacaagtt aacaacaaca 2160

attgcattca ttttatgttt caggttcagg gggagatgtg ggaggttttt taaagcaagt 2220

aaaacctcta caaatgtggt aaaataacta taacggtcct aaggtagcga gtgagtagtg 2280

ttctggggcg ggggaggacc tgcatgaggg ccagaataac tgaaatctgt gcttttctgt 2340

gtgttgcagc agcatgagcg gaagcggctc ctttgaggga ggggtattca gcccttatct 2400

gacggggcgt ctcccctcct gggcgggagt gcgtcagaat gtgatgggat ccacggtgga 2460

cggccggccc gtgcagcccg cgaactcttc aaccctgacc tatgcaaccc tgagctcttc 2520

gtcgttggac gcagctgccg ccgcagctgc tgcatctgcc gccagcgccg tgcgcggaat 2580

ggccatgggc gccggctact acggcactct ggtggccaac tcgagttcca ccaataatcc 2640

cgccagcctg aacgaggaga agctgttgct gctgatggcc cagctcgagg ccttgaccca 2700

gcgcctgggc gagctgaccc agcaggtggc tcagctgcag gagcagacgc gggccgcggt 2760

tgccacggtg aaatccaaat aaaaaatgaa tcaataaata aacggagacg gttgttgatt 2820

ttaacacaga gtctgaatct ttatttgatt tttcgcgcgc ggtaggccct ggaccaccgg 2880

tctcgatcat tgagcacccg gtggatcttt tccaggaccc ggtagaggtg ggcttggatg 2940

ttgaggtaca tgggcatgag cccgtcccgg gggtggaggt agctccattg cagggcctcg 3000

tgctcggggg tggtgttgta aatcacccag tcatagcagg ggcgcagggc atggtgttgc 3060

acaatatctt tgaggaggag actgatggcc acgggcagcc ctttggtgta ggtgtttaca 3120

aatctgttga gctgggaggg atgcatgcgg ggggagatga ggtgcatctt ggcctggatc 3180

ttgagattgg cgatgttacc gcccagatcc cgcctggggt tcatgttgtg caggaccacc 3240

agcacggtgt atccggtgca cttggggaat ttatcatgca acttggaagg gaaggcgtga 3300

aagaatttgg cgacgccttt gtgcccgccc aggttttcca tgcactcatc catgatgatg 3360

gcgatgggcc cgtgggcggc ggcctgggca aagacgtttc gggggtcgga cacatcatag 3420

ttgtggtcct gggtgaggtc atcataggcc attttaatga atttggggcg gagggtgccg 3480

gactgggggа caaaggtacc ctcgatcccg ggggcgtagt tcccctcaca gatctgcatc 3540

tcccaggctt tgagctcgga gggggggatc atgtccacct gcggggcgat aaagaacacg 3600

gtttccgggg cgggggagat gagctgggcc gaaagcaagt tccggagcag ctgggacttg 3660

ccgcagccgg tggggccgta gatgaccccg atgaccggct gcaggtggta gttgagggag 3720

agacagctgc cgtcctcccg gaggaggggg gccacctcgt tcatcatctc gcgcacgtgc 3780

atgttctcgc gcaccagttc cgccaggagg cgctctcccc ccagggatag gagctcctgg 3840

agcgaggcga agtttttcag cggcttgagt ccgtcggcca tgggcatttt ggagagggtt 3900

tgttgcaaga gttccaggcg gtcccagagc tcggtgatgt gctctacggc atctcgatcc 3960

agcagacctc ctcgtttcgc gggttgggac ggctgcggga gtagggcacc agacgatggg 4020

cgtccagcgc agccagggtc cggtccttcc agggtcgcag cgtccgcgtc agggtggtct 4080

ccgtcacggt gaaggggtgc gcgccgggct gggcgcttgc gagggtgcgc ttcaggctca 4140

tccggctggt cgaaaaccgc tcccgatcgg cgccctgcgc gtcggccagg tagcaattga 4200

ccatgagttc gtagttgagc gcctcggccg cgtggccttt ggcgcggagc ttacctttgg 4260

aagtctgccc gcaggcggga cagaggaggg acttgagggc gtagagcttg ggggcgagga 4320

agacggactc gggggcgtag gcgtccgcgc cgcagtgggc gcagacggtc tcgcactcca 4380

cgagccaggt gaggtcgggc tggtcggggt caaaaaccag tttcccgccg ttctttttga 4440

tgcgtttctt acctttggtc tccatgagct cgtgtccccg ctgggtgaca aagaggctgt 4500

ccgtgtcccc gtagaccgac tttatgggcc ggtcctcgag cggtgtgccg cggtcctcct 4560

cgtagaggaa ccccgcccac tccgagacga aagcccgggt ccaggccagc acgaaggagg 4620

ccacgtggga cgggtagcgg tcgttgtcca ccagcgggtc cacctttcc agggtatgca 4680

aacacatgtc cccctcgtcc acatccagga aggtgattgg cttgtaagtg taggccacgt 4740

gaccgggggt cccggccggg ggggtataaa agggtgcggg tccctgctcg tcctcactgt 4800

cttccggatc gctgtccagg agcgccagct gttggggtag gtattccctc tcgaaggcgg 4860

gcatgacctc ggcactcagg ttgtcagttt ctagaaacga ggaggatttg atattgacgg 4920

tgccggcgga gatgcctttc aagagcccct cgtccatctg gtcagaaaag acgatctttt 4980

tgttgtcgag cttggtggcg aaggagccgt agagggcgtt ggagaggagc ttggcgatgg 5040

agcgcatggt ctggtttttt tccttgtcgg cgcgctcctt ggcggcgatg ttgagctgca 5100

cgtactcgcg cgccacgcac ttccattcgg ggaagacggt ggtcagctcg tcgggcacga 5160

ttctgacctg ccagccccga ttatgcaggg tgatgaggtc cacactggtg gccacctcgc 5220

cgcgcagggg ctcattagtc cagcagaggc gtccgccctt gcgcgagcag aaggggggca 5280

gggggtccag catgacctcg tcgggggggt cggcatcgat ggtgaagatg ccgggcagga 5340

ggtcggggtc aaagtagctg atggaagtgg ccagatcgtc cagggcagct tgccattcgc 5400

gcacggccag cgcgcgctcg tagggactga ggggcgtgcc ccagggcatg ggatgggtaa 5460

gcgcggaggc gtacatgccg cagatgtcgt agacgtagag gggctcctcg aggatgccga 5520

tgtaggtggg gtagcagcgc cccccgcgga tgctggcgcg cacgtagtca tacagctcgt 5580

gcgagggggc gaggagcccc gggcccaggt tggtgcgact gggcttttcg gcgcggtaga 5640

cgatctggcg gaaaatggca tgcgagttgg aggagatggt gggcctttgg aagatgttga 5700

agtgggcgtg gggcagtccg accgagtcgc ggatgaagtg ggcgtaggag tcttgcagct 5760

tggcgacgag ctcggcggtg actaggacgt ccagagcgca gtagtcgagg gtctcctgga 5820

tgatgtcata cttgagctgt ccctttttgtt tccacagctc gcggttgaga aggaactctt 5880

cgcggtcctt ccagtactct tcgaggggga acccgtcctg atctgcacgg taagagccta 5940

gcatgtagaa ctggttgacg gccttgtagg cgcagcagcc cttctccacg gggagggcgt 6000

aggcctgggc ggccttgcgc agggaggtgt gcgtgagggc gaaagtgtcc ctgaccatga 6060

ccttgaggaa ctggtgcttg aagtcgatat cgtcgcagcc cccctgctcc cagagctgga 6120

agtccgtgcg cttcttgtag gcggggttgg gcaaagcgaa agtaacatcg ttgaagagga 6180

tcttgcccgc gcggggcata aagttgcgag tgatgcggaa aggttggggc acctcggccc 6240

ggttgttgat gacctgggcg gcgagcacga tctcgtcgaa gccgttgatg ttgtggccca 6300

cgatgtagag ttccacgaat cgcggacggc ccttgacgtg gggcagtttc ttgagctcct 6360

cgtaggtgag ctcgtcgggg tcgctgagcc cgtgctgctc gagcgcccag tcggcgagat 6420

gggggttggc gcggaggaag gaagtccaga gatccacggc cagggcggtt tgcagacggt 6480

cccggtactg acggaactgc tgcccgacgg ccatttttc gggggtgacg cagtagaagg 6540

tgcgggggtc cccgtgccag cgatcccatt tgagctggag ggcgagatcg agggcgagct 6600

cgacgagccg gtcgtccccg gagagtttca tgaccagcat gaaggggacg agctgcttgc 6660

cgaaggaccc catccaggtg taggtttcca catcgtaggt gaggaagagc ctttcggtgc 6720

gaggatgcga gccgatgggg aagaactgga tctcctgcca ccaattggag gaatggctgt 6780

tgatgtgatg gaagtagaaa tgccgacggc gcgccgaaca ctcgtgcttg tgtttataca 6840

agcggccaca gtgctcgcaa cgctgcacgg gatgcacgtg ctgcacgagc tgtacctgag 6900

ttcctttgac gaggaatttc agtgggaagt ggagtcgtgg cgcctgcatc tcgtgctgta 6960

ctacgtcgtg gtggtcggcc tggccctctt ctgcctcgat ggtggtcatg ctgacgagcc 7020

cgcgcgggag gcaggtccag acctcggcgc gagcgggtcg gagagcgagg acgagggcgc 7080

gcaggccgga gctgtccagg gtcctgagac gctgcggagt caggtcagtg ggcagcggcg 7140

gcgcgcggtt gacttgcagg agtttttcca gggcgcgcgg gaggtccaga tggtacttga 7200

tctccaccgc gccattggtg gcgacgtcga tggcttgcag ggtcccgtgc ccctggggtg 7260

tgaccaccgt cccccgtttc ttcttgggcg gctggggcga cgggggcggt gcctcttcca 7320

tggttagaag cggcggcgag gacgcgcgcc gggcggcagg ggcggctcgg ggcccggagg 7380

caggggcggc aggggcacgt cggcgccgcg cgcgggtagg ttctggtact gcgcccggag 7440

aagactggcg tgagcgacga cgcgacggtt gacgtcctgg atctgacgcc tctgggtgaa 7500

ggccacggga cccgtgagtt tgaacctgaa agagagttcg acagaatcaa tctcggtatc 7560

gttgacggcg gcctgccgca ggatctcttg cacgtcgccc gagttgtcct ggtaggcgat 7620

ctcggtcatg aactgctcga tctcctcctc ttgaaggtct ccgcggccgg cgcgctccac 7680

ggtggccgcg aggtcgttgg agatgcggcc catgagctgc gagaaggcgt tcatgcccgc 7740

ctcgttccag acgcggctgt agaccacgac gccctcggga tcgcgggcgc gcatgaccac 7800

ctgggcgagg ttgagctcca cgtggcgcgt gaagaccgcg tagttgcaga ggcgctggta 7860

gaggtagttg agcgtggtgg cgatgtgctc ggtgacgaag aaatacatga tccagcggcg 7920

gagcggcatc tcgctgacgt cgcccagcgc ctccaaacgt tccatggcct cgtaaaagtc 7980

cacggcgaag ttgaaaaact gggagttgcg cgccgagacg gtcaactcct cctccagaag 8040

acggatgagc tcggcgatgg tggcgcgcac ctcgcgctcg aaggcccccg ggagttcctc 8100

cacttcctct tcttcctcct ccactaacat ctcttctact tcctcctcag gcggcagtgg 8160

tggcggggga gggggcctgc gtcgccggcg gcgcacgggc agacggtcga tgaagcgctc 8220

gatggtctcg ccgcgccggc gtcgcatggt ctcggtgacg gcgcgcccgt cctcgcgggg 8280

ccgcagcgtg aagacgccgc cgcgcatctc caggtggccg gggggggtccc cgttgggcag 8340

ggagagggcg ctgacgatgc atcttatcaa ttgccccgta gggactccgc gcaaggacct 8400

gagcgtctcg agatccacgg gatctgaaaa ccgctgaacg aaggcttcga gccagtcgca 8460

gtcgcaaggt aggctgagca cggtttcttc tggcgggtca tgttggttgg gagcggggcg 8520

ggcgatgctg ctggtgatga agttgaaata ggcggttctg agacggcgga tggtggcgag 8580

gagcaccagg tctttgggcc cggcttgctg gatgcgcaga cggtcggcca tgccccaggc 8640

gtggtcctga cacctggcca ggtccttgta gtagtcctgc atgagccgct ccacgggcac 8700

ctcctcctcg cccgcgcggc cgtgcatgcg cgtgagcccg aagccgcgct ggggctggac 8760

gagcgccagg tcggcgacga cgcgctcggc gaggatggct tgctggatct gggtgagggt 8820

ggtctggaag tcatcaaagt cgacgaagcg gtggtaggct ccggtgttga tggtgtagga 8880

gcagttggcc atgacggacc agttgacggt ctggtggccc ggacgcacga gctcgtggta 8940

cttgaggcgc gagtaggcgc gcgtgtcgaa gatgtagtcg ttgcaggtgc gcaccaggta 9000

ctggtagccg atgaggaagt gcggcggcgg ctggcggtag agcggccatc gctcggtggc 9060

gggggcgccg ggcgcgaggt cctcgagcat ggtgcggtgg tagccgtaga tgtacctgga 9120

catccaggtg atgccggcgg cggtggtgga ggcgcgcggg aactcgcgga cgcggttcca 9180

gatgttgcgc agcggcagga agtagttcat ggtgggcacg gtctggcccg tgaggcgcgc 9240

gcagtcgtgg atgctctata cgggcaaaaa cgaaagcggt cagcggctcg actccgtggc 9300

ctggaggcta agcgaacggg ttgggctgcg cgtgtacccc ggttcgaatc tcgaatcagg 9360

ctggagccgc agctaacgtg gtattggcac tcccgtctcg acccaagcct gcaccaaccc 9420

tccaggatac ggaggcgggt cgttttgcaa ctttttttg gaggccggat gagactagta 9480

agcgcggaaa gcggccgacc gcgatggctc gctgccgtag tctggagaag aatcgccagg 9540

gttgcgttgc ggtgtgcccc ggttcgaggc cggccggatt ccgcggctaa cgagggcgtg 9600

gctgccccgt cgtttccaag accccatagc cagccgactt ctccagttac ggagcgagcc 9660

cctcttttgt tttgtttgtt tttgccagat gcatcccgta ctgcggcaga tgcgccccca 9720

ccaccctcca ccgcaacaac agcccccctcc acagccggcg cttctgcccc cgccccagca 9780

gcaacttcca gccacgaccg ccgcggccgc cgtgagcggg gctggacaga gttatgatca 9840

ccagctggcc ttggaagagg gcgaggggct ggcgcgcctg ggggcgtcgt cgccggagcg 9900

gcacccgcgc gtgcagatga aaagggacgc tcgcgaggcc tacgtgccca agcagaacct 9960

gttcagagac aggagcggcg aggagcccga ggagatgcgc gcggcccggt tccacgcggg 10020

gcgggagctg cggcgcggcc tggaccgaaa gagggtgctg agggacgagg atttcgaggc 10080

ggacgagctg acggggatca gccccgcgcg cgcgcacgtg gccgcggcca acctggtcac 10140

ggcgtacgag cagaccgtga aggaggagag caacttccaa aaatccttca acaaccacgt 10200

gcgcaccctg atcgcgcgcg aggaggtgac cctgggcctg atgcacctgt gggacctgct 10260

ggaggccatc gtgcagaacc ccaccagcaa gccgctgacg gcgcagctgt tcctggtggt 10320

gcagcatagt cgggacaacg aagcgttcag ggaggcgctg ctgaatatca ccgagcccga 10380

gggccgctgg ctcctggacc tggtgaacat tctgcagagc atcgtggtgc aggagcgcgg 10440

gctgccgctg tccgagaagc tggcggccat caacttctcg gtgctgagtt tgggcaagta 10500

ctacgctagg aagatctaca agaccccgta cgtgcccata gacaaggagg tgaagatcga 10560

cgggttttac atgcgcatga ccctgaaagt gctgaccctg agcgacgatc tgggggtgta 10620

ccgcaacgac aggatgcacc gtgcggtgag cgccagcagg cggcgcgagc tgagcgacca 10680

ggagctgatg catagtctgc agcgggccct gaccggggcc gggaccgagg gggagagcta 10740

ctttgacatg ggcgcggacc tgcactggca gcccagccgc cgggccttgg aggcggcggc 10800

aggaccctac gtagaagagg tggacgatga ggtggacgag gagggcgagt acctggaaga 10860

ctgatggcgc gaccgtattt ttgctagatg caacaacaac agccacctcc tgatcccgcg 10920

atgcgggcgg cgctgcagag ccagccgtcc ggcattaact cctcggacga ttggacccag 10980

gccatgcaac gcatcatggc gctgacgacc cgcaaccccg aagcctttag acagcagccc 11040

caggccaacc ggctctcggc catcctggag gccgtggtgc cctcgcgctc caaccccacg 11100

cacgagaagg tcctggccat cgtgaacgcg ctggtggaga acaaggccat ccgcggcgac 11160

gaggccggcc tggtgtacaa cgcgctgctg gagcgcgtgg cccgctacaa cagcaccaac 11220

gtgcagacca acctggaccg catggtgacc gacgtgcgcg aggccgtggc ccagcgcgag 11280

cggttccacc gcgagtccaa cctgggatcc atggtggcgc tgaacgcctt cctcagcacc 11340

cagcccgcca acgtgccccg gggccaggag gactacacca acttcatcag cgccctgcgc 11400

ctgatggtga ccgaggtgcc ccagagcgag gtgtaccagt ccgggccgga ctacttcttc 11460

cagaccagtc gccagggctt gcagaccgtg aacctgagcc aggctttcaa gaacttgcag 11520

ggcctgtggg gcgtgcaggc cccggtcggg gaccgcgcga cggtgtcgag cctgctgacg 11580

ccgaactcgc gcctgctgct gctgctggtg gccccttca cggacagcgg cagcatcaac 11640

cgcaactcgt acctgggcta cctgattaac ctgtaccgcg aggccatcgg ccaggcgcac 11700

gtggacgagc agacctacca ggagatcacc cacgtgagcc gcgccctggg ccaggacgac 11760

ccgggcaacc tggaagccac cctgaacttt ttgctgacca accggtcgca gaagatcccg 11820

ccccagtacg cgctcagcac cgaggaggag cgcatcctgc gttacgtgca gcagagcgtg 11880

ggcctgttcc tgatgcagga gggggccacc cccagcgccg cgctcgacat gaccgcgcgc 11940

aacatggagc ccagcatgta cgccagcaac cgcccgttca tcaataaact gatggactac 12000

ttgcatcggg cggccgccat gaactctgac tatttcacca acgccatcct gaatccccac 12060

tggctcccgc cgccggggtt ctacacgggc gagtacgaca tgcccgaccc caatgacggg 12120

ttcctgtggg acgatgtgga cagcagcgtg ttctcccccc gaccgggtgc taacgagcgc 12180

cccttgtgga agaaggaagg cagcgaccga cgcccgtcct cggcgctgtc cggccgcgag 12240

ggtgctgccg cggcggtgcc cgaggccgcc agtcctttcc cgagcttgcc cttctcgctg 12300

aacagtatcc gcagcagcga gctgggcagg atcacgcgcc cgcgcttgct gggcgaagag 12360

gagtacttga atgactcgct gttgagaccc gagcgggaga agaacttccc caataacggg 12420

atagaaagcc tggtggacaa gatgagccgc tggaagacgt atgcgcagga gcacagggac 12480

gatccccggg cgtcgcaggg ggccacgagc cggggcagcg ccgcccgtaa acgccggtgg 12540

cacgacaggc agcggggaca gatgtgggac gatgaggact ccgccgacga cagcagcgtg 12600

ttggacttgg gtgggagtgg taacccgttc gctcacctgc gcccccgtat cgggcgcatg 12660

atgtaagaga aaccgaaaat aaatgatact caccaaggcc atggcgacca gcgtgcgttc 12720

gtttcttctc tgttgttgtt gtatctagta tgatgaggcg tgcgtacccg gagggtcctc 12780

ctccctcgta cgagagcgtg atgcagcagg cgatggcggc ggcggcgatg cagcccccgc 12840

tggaggctcc ttacgtgccc ccgcggtacc tggcgcctac ggaggggcgg aacagcattc 12900

gttactcgga gctggcaccc ttgtacgata ccacccggtt gtacctggtg gacaacaagt 12960

cggcggacat cgcctcgctg aactaccaga acgaccacag caacttcctg accaccgtgg 13020

tgcagaacaa tgacttcacc cccacggagg ccagcaccca gaccatcaac tttgacgagc 13080

gctcgcggtg gggcggccag ctgaaaacca tcatgcacac caacatgccc aacgtgaacg 13140

agttcatgta cagcaacaag ttcaaggcgc gggtgatggt ctcccgcaag acccccaatg 13200

gggtgacagt gacagaggat tatgatggta gtcaggatga gctgaagtat gaatgggtgg 13260

aatttgagct gcccgaaggc aacttctcgg tgaccatgac catcgacctg atgaacaacg 13320

ccatcatcga caattacttg gcggtggggc ggcagaacgg ggtgctggag agcgacatcg 13380

gcgtgaagtt cgacactagg aacttcaggc tgggctggga ccccgtgacc gagctggtca 13440

tgcccggggt gtacaccaac gaggctttcc atcccgatat tgtcttgctg cccggctgcg 13500

gggtggactt caccgagagc cgcctcagca acctgctggg cattcgcaag aggcagccct 13560

tccaggaagg cttccagatc atgtacgagg atctggaggg gggcaacatc cccgcgctcc 13620

tggatgtcga cgcctatgag aaaagcaagg aggatgcagc agctgaagca actgcagccg 13680

tagctaccgc ctctaccgag gtcaggggcg ataattttgc aagcgccgca gcagtggcag 13740

cggccgaggc ggctgaaacc gaaagtaaga tagtcattca gccggtggag aaggatagca 13800

agaacaggag ctacaacgta ctaccggaca agataaacac cgcctaccgc agctggtacc 13860

tagcctacaa ctatggcgac cccgagaagg gcgtgcgctc ctggacgctg ctcaccacct 13920

cggacgtcac ctgcggcgtg gagcaagtct actggtcgct gcccgacatg atgcaagacc 13980

cggtcacctt ccgctccacg cgtcaagtta gcaactaccc ggtggtgggc gccgagctcc 14040

tgcccgtcta ctccaagagc ttcttcaacg agcaggccgt ctactcgcag cagctgcgcg 14100

ccttcacctc gcttacgcac gtcttcaacc gcttccccga gaaccagatc ctcgtccgcc 14160

cgcccgcgcc caccattacc accgtcagtg aaaacgttcc tgctctcaca gatcacggga 14220

ccctgccgct gcgcagcagt atccggggag tccagcgcgt gaccgttact gacgccagac 14280

gccgcacctg cccctacgtc tacaaggccc tgggcatagt cgcgccgcgc gtcctctcga 14340

gccgcacctt ctaaatgtcc attctcatct cgcccagtaa taacaccggt tggggcctgc 14400

gcgcgcccag caagatgtac ggaggcgctc gccaacgctc cacgcaacac cccgtgcgcg 14460

tgcgcgggca cttccgcgct ccctggggcg ccctcaaggg ccgcgtgcgg tcgcgcacca 14520

ccgtcgacga cgtgatcgac caggtggtgg ccgacgcgcg caactacacc cccgccgccg 14580

cgcccgtctc caccgtggac gccgtcatcg acagcgtggt ggccgacgcg cgccggtacg 14640

cccgcgccaa gagccggcgg cggcgcatcg cccggcggca ccggagcacc cccgccatgc 14700

gcgcggcgcg agccttgctg cgcagggcca ggcgcacggg acgcagggcc atgctcaggg 14760

cggccagacg cgcggcttca ggcgccagcg ccggcaggac ccggagacgc gcggccacgg 14820

cggcggcagc ggccatcgcc agcatgtccc gcccgcggcg agggaacgtg tactgggtgc 14880

gcgacgccgc caccggtgtg cgcgtgcccg tgcgcacccg ccccccctcgc acttgaagat 14940

gttcacttcg cgatgttgat gtgtcccagc ggcgaggagg atgtccaagc gcaaattcaa 15000

ggaagagatg ctccaggtca tcgcgcctga gatctacggc cctgcggtgg tgaaggagga 15060

aagaaagccc cgcaaaatca agcgggtcaa aaaggacaaa aaggaagaag aaagtgatgt 15120

ggacggattg gtggagtttg tgcgcgagtt cgccccccgg cggcgcgtgc agtggcgcgg 15180

gcggaaggtg caaccggtgc tgagacccgg caccaccgtg gtcttcacgc ccggcgagcg 15240

ctccggcacc gcttccaagc gctcctacga cgaggtgtac ggggatgatg atattctgga 15300

gcaggcggcc gagcgcctgg gcgagtttgc ttacggcaag cgcagccgtt ccgcaccgaa 15360

ggaagaggcg gtgtccatcc cgctggacca cggcaacccc acgccgagcc tcaagcccgt 15420

gaccttgcag caggtgctgc cgaccgcggc gccgcgccgg gggttcaagc gcgagggcga 15480

ggatctgtac cccaccatgc agctgatggt gcccaagcgc cagaagctgg aagacgtgct 15540

ggagaccatg aaggtggacc cggacgtgca gcccgaggtc aaggtgcggc ccatcaagca 15600

ggtggccccg ggcctgggcg tgcagaccgt ggacatcaag attcccacgg agcccatgga 15660

aacgcagacc gagcccatga tcaagcccag caccagcacc atggaggtgc agacggatcc 15720

ctggatgcca tcggctccta gtcgaagacc ccggcgcaag tacggcgcgg ccagcctgct 15780

gatgcccaac tacgcgctgc atccttccat catccccacg ccgggctacc gcggcacgcg 15840

cttctaccgc ggtcatacca gcagccgccg ccgcaagacc accactcgcc gccgccgtcg 15900

ccgcaccgcc gctgcaacca cccctgccgc cctggtgcgg agagtgtacc gccgcggccg 15960

cgcacctctg accctgccgc gcgcgcgcta ccacccgagc atcgccattt aaactttcgc 16020

ctgctttgca gatcaatggc cctcacatgc cgccttcgcg ttcccattac gggctaccga 16080

ggaagaaaac cgcgccgtag aaggctggcg gggaacggga tgcgtcgcca ccaccaccgg 16140

cggcggcgcg ccatcagcaa gcggttgggg ggaggcttcc tgcccgcgct gatccccatc 16200

atcgccgcgg cgatcggggc gatccccggc attgcttccg tggcggtgca ggcctctcag 16260

cgccactgag acacacttgg aaacatcttg taataaacca atggactctg acgctcctgg 16320

tcctgtgatg tgttttcgta gacagatgga agacatcaat ttttcgtccc tggctccgcg 16380

acacggcacg cggccgttca tgggcacctg gagcgacatc ggcaccagcc aactgaacgg 16440

gggcgccttc aattggagca gtctctggag cgggcttaag aatttcgggt ccacgcttaa 16500

aacctatggc agcaaggcgt ggaacagcac cacagggcag gcgctgaggg ataagctgaa 16560

agagcagaac ttccagcaga aggtggtcga tgggctcgcc tcgggcatca acggggtggt 16620

ggacctggcc aaccaggccg tgcagcggca gatcaacagc cgcctggacc cggtgccgcc 16680

cgccggctcc gtggagatgc cgcaggtgga ggaggagctg cctcccctgg acaagcgggg 16740

cgagaagcga ccccgccccg atgcggagga gacgctgctg acgcacacgg acgagccgcc 16800

cccgtacgag gaggcggtga aactgggtct gcccaccacg cggcccatcg cgcccctggc 16860

caccggggtg ctgaaacccg aaaagcccgc gaccctggac ttgcctcctc cccagccttc 16920

ccgcccctct acagtggcta agcccctgcc gccggtggcc gtggcccgcg cgcgacccgg 16980

gggcaccgcc cgccctcatg cgaactggca gagcactctg aacagcatcg tgggtctggg 17040

agtgcagagt gtgaagcgcc gccgctgcta ttaaacctac cgtagcgctt aacttgcttg 17100

tctgtgtgtg tatgtattat gtcgccgccg ccgctgtcca ccagaaggag gagtgaagag 17160

gcgcgtcgcc gagttgcaag atggccaccc catcgatgct gccccagtgg gcgtacatgc 17220

acatcgccgg acaggacgct tcggagtacc tgagtccggg tctggtgcag tttgcccgcg 17280

ccacagacac ctacttcagt ctggggaaca agtttaggaa ccccacggtg gcgcccacgc 17340

acgatgtgac caccgaccgc agccagcggc tgacgctgcg cttcgtgccc gtggaccgcg 17400

aggacaacac ctactcgtac aaagtgcgct acacgctggc cgtgggcgac aaccgcgtgc 17460

tggacatggc cagcacctac tttgacatcc gcggcgtgct ggatcggggc cctagcttca 17520

aaccctactc cggcaccgcc tacaacagtc tggcccccaa gggagcaccc aacacttgtc 17580

agtggacata taaagccgat ggtgaaactg ccacagaaaa aacctataca tatggaaatg 17640

cacccgtgca gggcattaac atcacaaaag atggtattca acttggaact gacaccgatg 17700

atcagccaat ctacgcagat aaaacctatc agcctgaacc tcaagtgggt gatgctgaat 17760

ggcatgacat cactggtact gatgaaaagt atggaggcag agctcttaag cctgatacca 17820

aaatgaagcc ttgttatggt tcttttgcca agcctactaa taaagaagga ggtcaggcaa 17880

atgtgaaaac aggaacaggc actactaaag aatatgacat agacatggct ttctttgaca 17940

acagaagtgc ggctgctgct ggcctagctc cagaaattgt tttgtatact gaaaatgtgg 18000

atttggaaac tccagatacc catattgtat acaaagcagg cacagatgac agcagctctt 18060

ctattaattt gggtcagcaa gccatgccca acagacctaa ctacattggt ttcagagaca 18120

actttatcgg gctcatgtac tacaacagca ctggcaatat gggggtgctg gccggtcagg 18180

cttctcagct gaatgctgtg gttgacttgc aagacagaaa caccgagctg tcctaccagc 18240

tcttgcttga ctctctgggt gacagaaccc ggtatttcag tatgtggaat caggcggtgg 18300

acagctatga tcctgatgtg cgcattattg aaaatcatgg tgtggaggat gaacttccca 18360

actattgttt ccctctggat gctgttggca gaacagatac ttatcaggga attaaggcta 18420

atggaactga tcaaaccaca tggaccaaag atgacagtgt caatgatgct aatgagatag 18480

gcaagggtaa tccattcgcc atggaaatca acatccaagc caacctgtgg aggaacttcc 18540

tctacgccaa cgtggccctg tacctgcccg actcttacaa gtacacgccg gccaatgtta 18600

ccctgcccac caacaccaac acctacgatt acatgaacgg ccgggtggtg gcgccctcgc 18660

tggtggactc ctacatcaac atcggggcgc gctggtcgct ggatcccatg gacaacgtga 18720

acccccttcaa ccaccaccgc aatgcggggc tgcgctaccg ctccatgctc ctgggcaacg 18780

ggcgctacgt gcccttccac atccaggtgc cccagaaatt tttcgccatc aagagcctcc 18840

tgctcctgcc cgggtcctac acctacgagt ggaacttccg caaggacgtc aacatgatcc 18900

tgcagagctc cctcggcaac gacctgcgca cggacggggc ctccatctcc ttcaccagca 18960

tcaacctcta cgccaccttc ttccccatgg cgcacaacac ggcctccacg ctcgaggcca 19020

tgctgcgcaa cgacaccaac gaccagtcct tcaacgacta cctctcggcg gccaacatgc 19080

tctaccccat cccggccaac gccaccaacg tgcccatctc catcccctcg cgcaactggg 19140

ccgccttccg cggctggtcc ttcacgcgtc tcaagaccaa ggagacgccc tcgctgggct 19200

ccgggttcga cccctacttc gtctactcgg gctccatccc ctacctcgac ggcaccttct 19260

acctcaacca caccttcaag aaggtctcca tcaccttcga ctcctccgtc agctggcccg 19320

gcaacgaccg gctcctgacg cccaacgagt tcgaaatcaa gcgcaccgtc gacggcgagg 19380

gctacaacgt ggcccagtgc aacatgacca aggactggtt cctggtccag atgctggccc 19440

actacaacat cggctaccag ggcttctacg tgcccgaggg ctacaaggac cgcatgtact 19500

ccttcttccg caacttccag cccatgagcc gccaggtggt ggacgaggtc aactacaagg 19560

actaccaggc cgtcaccctg gcctaccagc acaacaactc gggcttcgtc ggctacctcg 19620

cgcccaccat gcgccagggc cagccctacc ccgccaacta cccctacccg ctcatcggca 19680

agagcgccgt caccagcgtc acccagaaaa agttcctctg cgacagggtc atgtggcgca 19740

tccccttctc cagcaacttc atgtccatgg gcgcgctcac cgacctcggc cagaacatgc 19800

tctatgccaa ctccgcccac gcgctagaca tgaatttcga agtcgacccc atggatgagt 19860

ccacccttct ctatgttgtc ttcgaagtct tcgacgtcgt ccgagtgcac cagccccacc 19920

gcggcgtcat cgaggccgtc tacctgcgca ccccccttctc ggccggtaac gccaccacct 19980

aagctcttgc ttcttgcaag ccatggccgc gggctccggc gagcaggagc tcagggccat 20040

catccgcgac ctgggctgcg ggccctactt cctgggcacc ttcgataagc gcttcccggg 20100

attcatggcc ccgcacaagc tggcctgcgc catcgtcaac acggccggcc gcgagaccgg 20160

gggcgagcac tggctggcct tcgcctggaa cccgcgctcg aacacctgct acctcttcga 20220

ccccttcggg ttctcggacg agcgcctcaa gcagatctac cagttcgagt acgagggcct 20280

gctgcgccgc agcgccctgg ccaccgagga ccgctgcgtc accctggaaa agtccaccca 20340

gaccgtgcag ggtccgcgct cggccgcctg cgggctcttc tgctgcatgt tcctgcacgc 20400

cttcgtgcac tggcccgacc gccccatgga caagaacccc accatgaact tgctgacggg 20460

ggtgcccaac ggcatgctcc agtcgcccca ggtggaaccc accctgcgcc gcaaccagga 20520

ggcgctctac cgcttcctca actcccactc cgcctacttt cgctcccacc gcgcgcgcat 20580

cgagaaggcc accgccttcg accgcatgaa tcaagacatg taaaccgtgt gtgtatgtta 20640

aatgtcttta ataaacagca ctttcatgtt acacatgcat ctgagatgat ttatttagaa 20700

atcgaaaggg ttctgccggg tctcggcatg gcccgcgggc agggacacgt tgcggaactg 20760

gtacttggcc agccacttga actcggggat cagcagtttg ggcagcgggg tgtcggggaa 20820

ggagtcggtc cacagcttcc gcgtcagttg cagggcgccc agcaggtcgg gcgcggagat 20880

cttgaaatcg cagttgggac ccgcgttctg cgcgcgggag ttgcggtaca cggggttgca 20940

gcactggaac accatcaggg ccgggtgctt cacgctcgcc agcaccgtcg cgtcggtgat 21000

gctctccacg tcgaggtcct cggcgttggc catcccgaag ggggtcatct tgcaggtctg 21060

ccttcccatg gtgggcacgc acccgggctt gtggttgcaa tcgcagtgca gggggatcag 21120

catcatctgg gcctggtcgg cgttcatccc cgggtacatg gccttcatga aagcctccaa 21180

ttgcctgaac gcctgctggg ccttggctcc ctcggtgaag aagaccccgc aggacttgct 21240

agagaactgg ttggtggcgc acccggcgtc gtgcacgcag cagcgcgcgt cgttgttggc 21300

cagctgcacc acgctgcgcc cccagcggtt ctgggtgatc ttggcccggt cggggttctc 21360

cttcagcgcg cgctgcccgt tctcgctcgc cacatccatc tcgatcatgt gctccttctg 21420

gatcatggtg gtcccgtgca ggcaccgcag cttgccctcg gcctcggtgc acccgtgcag 21480

ccacagcgcg cacccggtgc actcccagtt cttgtgggcg atctgggaat gcgcgtgcac 21540

gaagccctgc aggaagcggc ccatcatggt ggtcagggtc ttgttgctag tgaaggtcag 21600

cggaatgccg cggtgctcct cgttgatgta caggtggcag atgcggcggt acacctcgcc 21660

ctgctcgggc atcagctgga agttggcttt caggtcggtc tccacgcggt agcggtccat 21720

cagcatagtc atgatttcca tacccttctc ccaggccgag acgatgggca ggctcatagg 21780

gttcttcacc atcatcttag cgctagcagc cgcggccagg gggtcgctct cgtccagggt 21840

ctcaaagctc cgcttgccgt ccttctcggt gatccgcacc ggggggtagc tgaagcccac 21900

ggccgccagc tcctcctcgg cctgtctttc gtcctcgctg tcctggctga cgtcctgcag 21960

gaccacatgc ttggtcttgc ggggtttctt cttgggcggc agcggcggcg gagatgttgg 22020

agatggcgag ggggagcgcg agttctcgct caccactact atctcttcct cttcttggtc 22080

cgaggccacg cggcggtagg tatgtctctt cgggggcaga ggcggaggcg acgggctctc 22140

gccgccgcga cttggcggat ggctggcaga gcccccttccg cgttcggggg tgcgctcccg 22200

gcggcgctct gactgacttc ctccgcggcc ggccattgtg ttctcctagg gaggaacaac 22260

aagcatggag actcagccat cgccaacctc gccatctgcc cccaccgccg acgagaagca 22320

gcagcagcag aatgaaagct taaccgcccc gccgcccagc cccgccacct ccgacgcggc 22380

cgtcccagac atgcaagaga tggaggaatc catcgagatt gacctgggct atgtgacgcc 22440

cgcggagcac gaggaggagc tggcagtgcg cttttcacaa gaagagatac accaagaaca 22500

gccagagcag gaagcagaga atgagcagag tcaggctggg ctcgagcatg acggcgacta 22560

cctccacctg agcgggggggg aggacgcgct catcaagcat ctggcccggc aggccaccat 22620

cgtcaaggat gcgctgctcg accgcaccga ggtgcccctc agcgtggagg agctcagccg 22680

cgcctacgag ttgaacctct tctcgccgcg cgtgcccccc aagcgccagc ccaatggcac 22740

ctgcgagccc aacccgcgcc tcaacttcta cccggtcttc gcggtgcccg aggccctggc 22800

cacctaccac atctttttca agaaccaaaa gatccccgtc tcctgccgcg ccaaccgcac 22860

ccgcgccgac gccctttca acctgggtcc cggcgcccgc ctacctgata tcgcctcctt 22920

ggaagaggtt cccaagatct tcgagggtct gggcagcgac gagactcggg ccgcgaacgc 22980

tctgcaagga gaaggaggag agcatgagca ccacagcgcc ctggtcgagt tggaaggcga 23040

caacgcgcgg ctggcggtgc tcaaacgcac ggtcgagctg acccatttcg cctacccggc 23100

tctgaacctg ccccccaaag tcatgagcgc ggtcatggac caggtgctca tcaagcgcgc 23160

gtcgcccatc tccgaggacg agggcatgca agactccgag gagggcaagc ccgtggtcag 23220

cgacgagcag ctggcccggt ggctgggtcc taatgctagt ccccagagtt tggaagagcg 23280

gcgcaaactc atgatggccg tggtcctggt gaccgtggag ctggagtgcc tgcgccgctt 23340

cttcgccgac gcggagaccc tgcgcaaggt cgaggagaac ctgcactacc tcttcaggca 23400

cgggttcgtg cgccaggcct gcaagatctc caacgtggag ctgaccaacc tggtctccta 23460

catgggcatc ttgcacgaga accgcctggg gcagaacgtg ctgcacacca ccctgcgcgg 23520

ggaggcccgg cgcgactaca tccgcgactg cgtctacctc tacctctgcc acacctggca 23580

gacgggcatg ggcgtgtggc agcagtgtct ggaggagcag aacctgaaag agctctgcaa 23640

gctcctgcag aagaacctca agggtctgtg gaccgggttc gacgagcgca ccaccgcctc 23700

ggacctggcc gacctcattt tccccgagcg cctcaggctg acgctgcgca acggcctgcc 23760

cgactttatg agccaaagca tgttgcaaaa ctttcgctct ttcatcctcg aacgctccgg 23820

aatcctgccc gccacctgct ccgcgctgcc ctcggacttc gtgccgctga ccttccgcga 23880

gtgccccccg ccgctgtgga gccactgcta cctgctgcgc ctggccaact acctggccta 23940

ccactcggac gtgatcgagg acgtcagcgg cgagggcctg ctcgagtgcc actgccgctg 24000

caacctctgc acgccgcacc gctccctggc ctgcaacccc cagctgctga gcgagaccca 24060

gatcatcggc accttcgagt tgcaagggcc cagcgaaggc gagggttcag ccgccaaggg 24120

gggtctgaaa ctcaccccgg ggctgtggac ctcggcctac ttgcgcaagt tcgtgcccga 24180

ggactaccat cccttcgaga tcaggttcta cgaggaccaa tcccatccgc ccaaggccga 24240

gctgtcggcc tgcgtcatca cccagggggc gatcctggcc caattgcaag ccatccagaa 24300

atcccgccaa gaattcttgc tgaaaaaggg ccgcggggtc tacctcgacc cccagaccgg 24360

tgaggagctc aaccccggct tcccccagga tgccccgagg aaacaagaag ctgaaagtgg 24420

agctgccgcc cgtggaggat ttggaggaag actgggagaa cagcagtcag gcagaggagg 24480

aggagatgga ggaagactgg gacagcactc aggcagagga ggacagcctg caagacagtc 24540

tggaggaaga cgaggaggag gcagaggagg aggtggaaga agcagccgcc gccagaccgt 24600

cgtcctcggc gggggagaaa gcaagcagca cggataccat ctccgctccg ggtcggggtc 24660

ccgctcgacc acacagtaga tgggacgaga ccggacgatt cccgaacccc accacccaga 24720

ccggtaagaa ggagcggcag ggatacaagt cctggcgggg gcacaaaaac gccatcgtct 24780

cctgcttgca ggcctgcggg ggcaacatct ccttcacccg gcgctacctg ctcttccacc 24840

gcggggtgaa ctttcccccgc aacatcttgc attactaccg tcacctccac agcccctact 24900

acttccaaga agaggcagca gcagcagaaa aagaccagca gaaaaccagc agctagaaaa 24960

tccacagcgg cggcagcagg tggactgagg atcgcggcga acgagccggc gcaaacccgg 25020

gagctgagga accggatctt tcccaccctc tatgccatct tccagcagag tcgggggcag 25080

gagcaggaac tgaaagtcaa gaaccgttct ctgcgctcgc tcacccgcag ttgtctgtat 25140

cacaagagcg aagaccaact tcagcgcact ctcgaggacg ccgaggctct cttcaacaag 25200

tactgcgcgc tcactcttaa agagtagccc gcgcccgccc agtcgcagaa aaaggcggga 25260

attacgtcac ctgtgccctt cgccctagcc gcctccaccc atcatcatga gcaaagagat 25320

tcccacgcct tacatgtgga gctaccagcc ccagatgggc ctggccgccg gtgccgccca 25380

ggactactcc acccgcatga attggctcag cgccgggccc gcgatgatct cacgggtgaa 25440

tgacatccgc gcccaccgaa accagatact cctagaacag tcagcgctca ccgccacgcc 25500

ccgcaatcac ctcaatccgc gtaattggcc cgccgccctg gtgtaccagg aaattcccca 25560

gcccacgacc gtactacttc cgcgagacgc ccaggccgaa gtccagctga ctaactcagg 25620

tgtccagctg gcgggcggcg ccaccctgtg tcgtcaccgc cccgctcagg gtataaagcg 25680

gctggtgatc cggggcagag gcacacagct caacgacgag gtggtgagct cttcgctggg 25740

tctgcgacct gacggagtct tccaactcgc cggatcgggg agatcttcct tcacgcctcg 25800

tcaggccgtc ctgactttgg agagttcgtc ctcgcagccc cgctcgggtg gcatcggcac 25860

tctccagttc gtggaggagt tcactccctc ggtctacttc aacccccttct ccggctcccc 25920

cggccactac ccggacgagt tcatcccgaa cttcgacgcc atcagcgagt cggtggacgg 25980

ctacgattga aactaatcac ccccttatcc agtgaaataa agatcatatt gatgatgatt 26040

ttacagaaat aaaaaataat catttgattt gaaataaaga tacaatcata ttgatgattt 26100

gagtttaaca aaaaaataaa gaatcactta cttgaaatct gataccaggt ctctgtccat 26160

gttttctgcc aacaccactt cactcccctc ttcccagctc tggtactgca ggccccggcg 26220

ggctgcaaac ttcctccaca cgctgaaggg gatgtcaaat tcctcctgtc cctcaatctt 26280

cattttatct tctatcagat gtccaaaaag cgcgtccggg tggatgatga cttcgacccc 26340

gtctacccct acgatgcaga caacgcaccg accgtgccct tcatcaaccc ccccttcgtc 26400

tcttcagatg gattccaaga gaagcccctg ggggtgttgt ccctgcgact ggccgacccc 26460

gtcaccacca agaacgggga aatcaccctc aagctgggag agggggtgga cctcgattcc 26520

tcgggaaaac tcatctccaa cacggccacc aaggccgccg cccctctcag tttttccaac 26580

aacaccattt cccttaacat ggatcacccc ttttacacta aagatggaaa attatcctta 26640

caagtttctc caccattaaa tatactgaga acaagcattc taaacacact agctttaggt 26700

tttggatcag gtttaggact ccgtggctct gccttggcag tacagttagt ctctccactt 26760

acatttgata ctgatggaaa cataaagctt accttagaca gaggtttgca tgttacaaca 26820

ggagatgcaa ttgaaagcaa cataagctgg gctaaaggtt taaaatttga agatggagcc 26880

atagcaacca acattggaaa tgggttagag tttggaagca gtagtacaga aacaggtgtt 26940

gatgatgctt acccaatcca agttaaactt ggatctggcc ttagctttga cagtacagga 27000

gccataatgg ctggtaacaa agaagacgat aaactcactt tgtggacaac acctgatcca 27060

tcaccaaact gtcaaatact cgcagaaaat gatgcaaaac taacactttg cttgactaaa 27120

tgtggtagtc aaatactggc cactgtgtca gtcttagttg taggaagtgg aaacctaaac 27180

cccattactg gcaccgtaag cagtgctcag gtgtttctac gttttgatgc aaacggtgtt 27240

cttttaacag aacattctac actaaaaaaa tactgggggt ataggcaggg agatagcata 27300

gatggcactc catataccaa tgctgtagga ttcatgccca atttaaaagc ttatccaaag 27360

tcacaaagtt ctactactaa aaataatata gtagggcaag tatacatgaa tggagatgtt 27420

tcaaaaccta tgcttctcac tataaccctc aatggtactg atgacagcaa cagtacatat 27480

tcaatgtcat tttcatacac ctggactaat ggaagctatg ttggagcaac atttggggct 27540

aactcttata ccttctcata catcgcccaa gaatgaacac tgtatcccac cctgcatgcc 27600

aacccttccc accccactct gtggaacaaa ctctgaaaca caaaataaaa taaagttcaa 27660

gtgttttatt gattcaacag ttttacagga ttcgagcagt tatttttcct ccaccctccc 27720

aggacatgga atacaccacc ctctcccccc gcacagcctt gaacatctga atgccattgg 27780

tgatggacat gcttttggtc tccacgttcc acacagtttc agagcgagcc agtctcgggt 27840

cggtcaggga gatgaaaccc tccgggcact cccgcatctg cacctcacag ctcaacagct 27900

gaggattgtc ctcggtggtc gggatcacgg ttatctggaa gaagcagaag agcggcggtg 27960

ggaatcatag tccgcgaacg ggatcggccg gtggtgtcgc atcaggcccc gcagcagtcg 28020

ctgccgccgc cgctccgtca agctgctgct caggggggtcc gggtccaggg actccctcag 28080

catgatgccc acggccctca gcatcagtcg tctggtgcgg cgggcgcagc agcgcatgcg 28140

gatctcgctc aggtcgctgc agtacgtgca acacagaacc accaggttgt tcaacagtcc 28200

atagttcaac acgctccagc cgaaactcat cgcgggaagg atgctaccca cgtggccgtc 28260

gtaccagatc ctcaggtaaa tcaagtggtg ccccctccag aacacgctgc ccacgtacat 28320

gatctccttg ggcatgtggc ggttcaccac ctcccggtac cacatcaccc tctggttgaa 28380

catgcagccc cggatgatcc tgcggaacca cagggccagc accgccccgc ccgccatgca 28440

gcgaagagac cccgggtccc ggcaatggca atggaggacc caccgctcgt acccgtggat 28500

catctgggag ctgaacaagt ctatgttggc acagcacagg catatgctca tgcatctctt 28560

cagcactctc aactcctcgg gggtcaaaac catatcccag ggcacgggga actcttgcag 28620

gacagcgaac cccgcagaac agggcaatcc tcgcacagaa cttacattgt gcatggacag 28680

ggtatcgcaa tcaggcagca ccgggtgatc ctccaccaga gaagcgcggg tctcggtctc 28740

ctcacagcgt ggtaaggggg ccggccgata cgggtgatgg cgggacgcgg ctgatcgtgt 28800

tcgcgaccgt gtcatgatgc agttgctttc ggacattttc gtacttgctg tagcagaacc 28860

tggtccgggc gctgcacacc gatcgccggc ggcggtctcg gcgcttggaa cgctcggtgt 28920

tgaaattgta aaacagccac tctctcagac cgtgcagcag atctagggcc tcaggagtga 28980

tgaagatccc atcatgcctg atggctctga tcacatcgac caccgtggaa tgggccagac 29040

ccagccagat gatgcaattt tgttgggttt cggtgacggc gggggaggga agaacaggaa 29100

gaaccatgat taacttttaa tccaaacggt ctcggagtac ttcaaaatga agatcgcgga 29160

gatggcacct ctcgcccccg ctgtgttggt ggaaaataac agccaggtca aaggtgatac 29220

ggttctcgag atgttccacg gtggcttcca gcaaagcctc cacgcgcaca tccagaaaca 29280

agacaatagc gaaagcggga gggttctcta attcctcaat catcatgtta cactcctgca 29340

ccatccccag ataattttca tttttccagc cttgaatgat tcgaactagt tcctgaggta 29400

aatccaagcc agccatgata aagagctcgc gcagagcgcc ctccaccggc attcttaagc 29460

acaccctcat aattccaaga tattctgctc ctggttcacc tgcagcagat tgacaagcgg 29520

aatatcaaaa tctctgccgc gatccctgag ctcctccctc agcaataact gtaagtactc 29580

tttcatatcc tctccgaaat ttttagccat aggaccacca ggaataagat tagggcaagc 29640

cacagtacag ataaaccgaa gtcctcccca gtgagcattg ccaaatgcaa gactgctata 29700

agcatgctgg ctagacccgg tgatatcttc cagataactg gacagaaaat cgcccaggca 29760

atttttaaga aaatcaacaa aagaaaaatc ctccaggtgg acgtttagag cctcgggaac 29820

aacgatgaag taaatgcaag cggtgcgttc cagcatggtt agttagctga tctgtagaaa 29880

aaacaaaaat gaacattaaa ccatgctagc ctggcgaaca ggtgggtaaa tcgttctctc 29940

cagcaccagg caggccacgg ggtctccggc gcgaccctcg taaaaattgt cgctatgatt 30000

gaaaaccatc acagagagac gttcccggtg gccggcgtga atgattcgac aagatgaata 30060

caccccggga acattggcgt ccgcgagtga aaaaaagcgc ccgaggaagc aataaggcac 30120

tacaatgctc agtctcaagt ccagcaaagc gatgccatgc ggatgaagca caaaattctc 30180

aggtgcgtac aaaatgtaat tactcccctc ctgcacaggc agcaaagccc ccgatccctc 30240

caggtacaca tacaaagcct cagcgtccat agcttaccga gcagcagcac acaacaggcg 30300

caagagtcag agaaaggctg agctctaacc tgtccacccg ctctctgctc aatatatagc 30360

ccagatctac actgacgtaa aggccaaagt ctaaaaatac ccgccaaata atcacacacg 30420

cccagcacac gcccagaaac cggtgacaca ctcaaaaaaa tacgcgcact tcctcaaacg 30480

cccaaaactg ccgtcatttc cgggttccca cgctacgtca tcaaaacacg actttcaaat 30540

tccgtcgacc gttaaaaacg tcacccgccc cgcccctaac ggtcgcccgt ctctcagcca 30600

atcagcgccc cgcatcccca aattcaaaca cctcatttgc atattaacgc gcacaaaaag 30660

tttgaggtat attattgatg atgg 30684

<210> 14
<211> 8602
<212> DNA
<213> Artificial Sequence

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

<400> 14
atgggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgctggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gactctagaa tagtctttaa 7560

ttaaagtccg ccatatgagg ccaccatgca gatcttcgtg aagaccctga ccggcaagac 7620

catcacccta gaggtggagc ccagtgacac catcgagaac gtgaaggcca agatccagga 7680

taaagagggc atccccctg accagcagag gctgatcttt gccggcaagc agctggaaga 7740

tggccgcacc ctctctgatt acaacatcca gaaggagtca accctgcacc tggtccttcg 7800

cctgagaggt ggcgctgctt acagtataat caactttgaa aaactggctg cttacggcat 7860

cctgggcttt gtgtttacac tggctgccta cctgctgttt ggctatcctg tgtacgtggc 7920

cgcttatgga ctgtgtaccc tggtggccat gctggctgct tacaatctgg tgcctatggt 7980

ggccacagtg gccgcctatt gtcttggcgg actgctgaca atggtggcag cctacagccc 8040

gagctatgcg tatcatcagt ttgcagccta cggcccagga ccaggcgcta aatttgtggc 8100

tgcctggaca ctgaaagccg ccgctggacc aggtcctgga cagtacatca aggccaacag 8160

caagttcatc ggcatcaccg aactcggccc aggaccaggc tatccctacg atgtgcctga 8220

ttacgcctga tagtgatgat tcgaacggcc gtatcacgcc caaacattta cagccgcggt 8280

gtcaaaaacc gcgtggacgt ggttaacatc cctgctggga ggatcagccg taattattat 8340

aattggcttg gtgctggcta ctattgtggc catgtacgtg ctgaccaacc agaaacataa 8400

ttgaatacag cagcaattgg caagctgctt acatagaact cgcggcgatt ggcatgccgc 8460

cttaaaattt ttattttatt ttttcttttc ttttccgaat cggattttgt ttttaatatt 8520

tcaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 8580

aaaaaaaaaa aaaaaaaaaa aa 8602

<210> 15
<211> 9595
<212> DNA
<213> Artificial Sequence

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

<400> 15
atgggcggcg catgagagaa gcccagacca attacctacc caaaatggag aaagttcacg 60

ttgacatcga ggaagacagc ccattcctca gagctttgca gcggagcttc ccgcagtttg 120

aggtagaagc caagcaggtc actgataatg accatgctaa tgccagagcg ttttcgcatc 180

tggcttcaaa actgatcgaa acggaggtgg acccatccga cacgatcctt gacattggaa 240

gtgcgcccgc ccgcagaatg tattctaagc acaagtatca ttgtatctgt ccgatgagat 300

gtgcggaaga tccggacaga ttgtataagt atgcaactaa gctgaagaaa aactgtaagg 360

aaataactga taaggaattg gacaagaaaa tgaaggagct cgccgccgtc atgagcgacc 420

ctgacctgga aactgagact atgtgcctcc acgacgacga gtcgtgtcgc tacgaagggc 480

aagtcgctgt ttaccaggat gtatacgcgg ttgacggacc gacaagtctc tatcaccaag 540

ccaataaggg agttagagtc gcctactgga taggctttga caccacccct tttatgttta 600

agaacttggc tggagcatat ccatcatact ctaccaactg ggccgacgaa accgtgttaa 660

cggctcgtaa cataggccta tgcagctctg acgttatgga gcggtcacgt agagggatgt 720

ccattcttag aaagaagtat ttgaaaccat ccaacaatgt tctattctct gttggctcga 780

ccatctacca cgagaagagg gacttactga ggagctggca cctgccgtct gtatttcact 840

tacgtggcaa gcaaaattac acatgtcggt gtgagactat agttagttgc gacgggtacg 900

tcgttaaaag aatagctatc agtccaggcc tgtatgggaa gccttcaggc tatgctgcta 960

cgatgcaccg cgagggattc ttgtgctgca aagtgacaga cacattgaac ggggagaggg 1020

tctcttttcc cgtgtgcacg tatgtgccag ctacattgtg tgaccaaatg actggcatac 1080

tggcaacaga tgtcagtgcg gacgacgcgc aaaaactgct ggttgggctc aaccagcgta 1140

tagtcgtcaa cggtcgcacc cagagaaaca ccaataccat gaaaaattac cttttgcccg 1200

tagtggccca ggcatttgct aggtgggcaa aggaatataa ggaagatcaa gaagatgaaa 1260

ggccactagg actacgagat agacagttag tcatggggtg ttgttgggct tttagaaggc 1320

acaagataac atctatttat aagcgcccgg atacccaaac catcatcaaa gtgaacagcg 1380

atttccactc attcgtgctg cccaggatag gcagtaacac attggagatc gggctgagaa 1440

caagaatcag gaaaatgtta gaggagcaca aggagccgtc acctctcatt accgccgagg 1500

acgtacaaga agctaagtgc gcagccgatg aggctaagga ggtgcgtgaa gccgaggagt 1560

tgcgcgcagc tctaccacct ttggcagctg atgttgagga gcccactctg gaagccgatg 1620

tcgacttgat gttacaagag gctggggccg gctcagtgga gacacctcgt ggcttgataa 1680

aggttaccag ctacgctggc gaggacaaga tcggctctta cgctgtgctt tctccgcagg 1740

ctgtactcaa gagtgaaaaa ttatcttgca tccaccctct cgctgaacaa gtcatagtga 1800

taacacactc tggccgaaaa gggcgttatg ccgtggaacc ataccatggt aaagtagtgg 1860

tgccagaggg acatgcaata cccgtccagg actttcaagc tctgagtgaa agtgccacca 1920

ttgtgtacaa cgaacgtgag ttcgtaaaca ggtacctgca ccatattgcc acacatggag 1980

gagcgctgaa cactgatgaa gaatattaca aaactgtcaa gcccagcgag cacgacggcg 2040

aatacctgta cgacatcgac aggaaacagt gcgtcaagaa agaactagtc actgggctag 2100

ggctcacagg cgagctggtg gatcctccct tccatgaatt cgcctacgag agtctgagaa 2160

cacgaccagc cgctccttac caagtaccaa ccataggggt gtatggcgtg ccaggatcag 2220

gcaagtctgg catcattaaa agcgcagtca ccaaaaaaga tctagtggtg agcgccaaga 2280

aagaaaactg tgcagaaatt ataagggacg tcaagaaaat gaaagggctg gacgtcaatg 2340

ccagaactgt ggactcagtg ctcttgaatg gatgcaaaca ccccgtagag accctgtata 2400

ttgacgaagc ttttgcttgt catgcaggta ctctcagagc gctcatagcc attataagac 2460

ctaaaaaggc agtgctctgc ggggatccca aacagtgcgg ttttttttaac atgatgtgcc 2520

tgaaagtgca ttttaaccac gagatttgca cacaagtctt ccacaaaagc atctctcgcc 2580

gttgcactaa atctgtgact tcggtcgtct caaccttgtt ttacgacaaa aaaatgagaa 2640

cgacgaatcc gaaagagact aagattgtga ttgacactac cggcagtacc aaacctaagc 2700

aggacgatct cattctcact tgtttcagag ggtgggtgaa gcagttgcaa atagattaca 2760

aaggcaacga aataatgacg gcagctgcct ctcaagggct gacccgtaaa ggtgtgtatg 2820

ccgttcggta caaggtgaat gaaaatcctc tgtacgcacc cacctcagaa catgtgaacg 2880

tcctactgac ccgcacggag gaccgcatcg tgtggaaaac actagccggc gacccatgga 2940

taaaaacact gactgccaag taccctggga atttcactgc cacgatagag gagtggcaag 3000

cagagcatga tgccatcatg aggcacatct tggagagacc ggaccctacc gacgtcttcc 3060

agaataaggc aaacgtgtgt tgggccaagg ctttagtgcc ggtgctgaag accgctggca 3120

tagacatgac cactgaacaa tggaacactg tggattattt tgaaacggac aaagctcact 3180

cagcagagat agtattgaac caactatgcg tgaggttctt tggactcgat ctggactccg 3240

gtctattttc tgcacccact gttccgttat ccattaggaa taatcactgg gataactccc 3300

cgtcgcctaa catgtacggg ctgaataaag aagtggtccg tcagctctct cgcaggtacc 3360

cacaactgcc tcgggcagtt gccactggaa gagtctatga catgaacact ggtacactgc 3420

gcaattatga tccgcgcata aacctagtac ctgtaaacag aagactgcct catgctttag 3480

tcctccacca taatgaacac ccacagagtg acttttcttc attcgtcagc aaattgaagg 3540

gcagaactgt cctggtggtc ggggaaaagt tgtccgtccc aggcaaaatg gttgactggt 3600

tgtcagaccg gcctgaggct accttcagag ctcggctgga tttaggcatc ccaggtgatg 3660

tgcccaaata tgacataata tttgttaatg tgaggacccc atataaatac catcactatc 3720

agcagtgtga agaccatgcc attaagctta gcatgttgac caagaaagct tgtctgcatc 3780

tgaatcccgg cggaacctgt gtcagcatag gttatggtta cgctgacagg gccagcgaaa 3840

gcatcattgg tgctatagcg cggcagttca agttttcccg ggtatgcaaa ccgaaatcct 3900

cacttgaaga gacggaagtt ctgtttgtat tcattgggta cgatcgcaag gcccgtacgc 3960

acaatcctta caagctttca tcaaccttga ccaacattta tacaggttcc agactccacg 4020

aagccggatg tgcaccctca tatcatgtgg tgcgagggga tattgccacg gccaccgaag 4080

gagtgattat aaatgctgct aacagcaaag gacaacctgg cggaggggtg tgcggagcgc 4140

tgtataagaa attcccggaa agcttcgatt tacagccgat cgaagtagga aaagcgcgac 4200

tggtcaaagg tgcagctaaa catatcattc atgccgtagg accaaacttc aacaaagttt 4260

cggaggttga aggtgacaaa cagttggcag aggcttatga gtccatcgct aagattgtca 4320

acgataacaa ttacaagtca gtagcgattc cactgttgtc caccggcatc ttttccggga 4380

acaaagatcg actaacccaa tcattgaacc atttgctgac agctttagac accactgatg 4440

cagatgtagc catatactgc agggacaaga aatgggaaat gactctcaag gaagcagtgg 4500

ctaggagaga agcagtggag gagatatgca tatccgacga ctcttcagtg acagaacctg 4560

atgcagagct ggtgagggtg catccgaaga gttctttggc tggaaggaag ggctacagca 4620

caagcgatgg caaaactttc tcatatttgg aagggaccaa gtttcaccag gcggccaagg 4680

atatagcaga aattaatgcc atgtggcccg ttgcaacgga ggccaatgag caggtatgca 4740

tgtatatcct cggagaaagc atgagcagta ttaggtcgaa atgccccgtc gaagagtcgg 4800

aagcctccac accacctagc acgctgcctt gcttgtgcat ccatgccatg actccagaaa 4860

gagtacagcg cctaaaagcc tcacgtccag aacaaattac tgtgtgctca tcctttccat 4920

tgccgaagta tagaatcact ggtgtgcaga agatccaatg ctcccagcct atattgttct 4980

caccgaaagt gcctgcgtat attcatccaa ggaagtatct cgtggaaaca ccaccggtag 5040

acgagactcc ggagccatcg gcagagaacc aatccacaga ggggacacct gaacaaccac 5100

cacttataac cgaggatgag accaggacta gaacgcctga gccgatcatc atcgaagagg 5160

aagaagagga tagcataagt ttgctgtcag atggcccgac ccaccaggtg ctgcaagtcg 5220

aggcagacat tcacgggccg ccctctgtat ctagctcatc ctggtccatt cctcatgcat 5280

ccgactttga tgtggacagt ttatccatac ttgacaccct ggagggagct agcgtgacca 5340

gcggggcaac gtcagccgag actaactctt acttcgcaaa gagtatggag tttctggcgc 5400

gaccggtgcc tgcgcctcga acagtattca ggaaccctcc acatcccgct ccgcgcacaa 5460

gaacaccgtc acttgcaccc agcagggcct gctcgagaac cagcctagtt tccaccccgc 5520

caggcgtgaa tagggtgatc actagagagg agctcgaggc gcttaccccg tcacgcactc 5580

ctagcaggtc ggtctcgaga accagcctgg tctccaaccc gccaggcgta aatagggtga 5640

ttacaagaga ggagtttgag gcgttcgtag cacaacaaca atgacggttt gatgcgggtg 5700

catacatctt ttcctccgac accggtcaag ggcatttaca acaaaaatca gtaaggcaaa 5760

cggtgctatc cgaagtggtg ttggagagga ccgaattgga gatttcgtat gccccgcgcc 5820

tcgaccaaga aaaagaagaa ttactacgca agaaattaca gttaaatccc acacctgcta 5880

acagaagcag ataccagtcc aggaaggtgg agaacatgaa agccataaca gctagacgta 5940

ttctgcaagg cctagggcat tatttgaagg cagaaggaaa agtggagtgc taccgaaccc 6000

tgcatcctgt tcctttgtat tcatctagtg tgaaccgtgc cttttcaagc cccaaggtcg 6060

cagtggaagc ctgtaacgcc atgttgaaag agaactttcc gactgtggct tcttactgta 6120

ttattccaga gtacgatgcc tatttggaca tggttgacgg agcttcatgc tgcttagaca 6180

ctgccagttt ttgccctgca aagctgcgca gctttccaaa gaaacactcc tatttggaac 6240

ccacaatacg atcggcagtg ccttcagcga tccagaacac gctccagaac gtcctggcag 6300

ctgccacaaa aagaaattgc aatgtcacgc aaatgagaga attgcccgta ttggattcgg 6360

cggcctttaa tgtggaatgc ttcaagaaat atgcgtgtaa taatgaatat tgggaaacgt 6420

ttaaagaaaa ccccatcagg cttactgaag aaaacgtggt aaattacatt accaaattaa 6480

aaggaccaaa agctgctgct ctttttgcga agacacataa tttgaatatg ttgcaggaca 6540

taccaatgga caggtttgta atggacttaa agagagacgt gaaagtgact ccaggaacaa 6600

aacatactga agaacggccc aaggtacagg tgatccaggc tgccgatccg ctagcaacag 6660

cgtatctgtg cggaatccac cgagagctgg ttaggagatt aaatgcggtc ctgcttccga 6720

acattcatac actgtttgat atgtcggctg aagactttga cgctattata gccgagcact 6780

tccagcctgg ggattgtgtt ctggaaactg acatcgcgtc gtttgataaa agtgaggacg 6840

acgccatggc tctgaccgcg ttaatgattc tggaagactt aggtgtggac gcagagctgt 6900

tgacgctgat tgaggcggct ttcggcgaaa tttcatcaat acatttgccc actaaaacta 6960

aatttaaatt cggagccatg atgaaatctg gaatgttcct cacactgttt gtgaacacag 7020

tcattaacat tgtaatcgca agcagagtgt tgagagaacg gctaaccgga tcaccatgtg 7080

cagcattcat tggagatgac aatatcgtga aaggagtcaa atcggacaaa ttaatggcag 7140

acaggtgcgc cacctggttg aatatggaag tcaagattat agatgctgtg gtgggcgaga 7200

aagcgcctta tttctgtgga gggtttattt tgtgtgactc cgtgaccggc acagcgtgcc 7260

gtgtggcaga ccccctaaaa aggctgttta agcttggcaa acctctggca gcagacgatg 7320

aacatgatga tgacaggaga agggcattgc atgaagagtc aacacgctgg aaccgagtgg 7380

gtattctttc agagctgtgc aaggcagtag aatcaaggta tgaaaccgta ggaacttcca 7440

tcatagttat ggccatgact actctagcta gcagtgttaa atcattcagc tacctgagag 7500

gggcccctat aactctctac ggctaacctg aatggactac gactctagaa tagtctttaa 7560

ttaaagtccg ccatatgaga tggaagatgc caaaaacatt aagaagggcc cagcgccatt 7620

ctacccactc gaagacggga ccgccggcga gcagctgcac aaagccatga agcgctacgc 7680

cctggtgccc ggcaccatcg cctttaccga cgcacatatc gaggtggaca ttacctacgc 7740

cgagtacttc gagatgagcg ttcggctggc agaagctatg aagcgctatg ggctgaatac 7800

aaaccatcgg atcgtggtgt gcagcgagaa tagcttgcag ttcttcatgc ccgtgttggg 7860

tgccctgttc atcggtgtgg ctgtggcccc agctaacgac atctacaacg agcgcgagct 7920

gctgaacagc atgggcatca gccagcccac cgtcgtattc gtgagcaaga aagggctgca 7980

aaagatcctc aacgtgcaaa agaagctacc gatcatacaa aagatcatca tcatggatag 8040

caagaccgac taccagggct tccaaagcat gtacaccttc gtgacttccc atttgccacc 8100

cggcttcaac gagtacgact tcgtgcccga gagcttcgac cgggacaaaa ccatcgccct 8160

gatcatgaac agtagtggca gtaccggatt gcccaagggc gtagccctac cgcaccgcac 8220

cgcttgtgtc cgattcagtc atgcccgcga ccccatcttc ggcaaccaga tcatccccga 8280

caccgctatc ctcagcgtgg tgccatttca ccacggcttc ggcatgttca ccacgctggg 8340

ctacttgatc tgcggctttc gggtcgtgct catgtaccgc ttcgaggagg agctattctt 8400

gcgcagcttg caagactata agattcaatc tgccctgctg gtgcccacac tatttagctt 8460

cttcgctaag agcactctca tcgacaagta cgacctaagc aacttgcacg agatcgccag 8520

cggcggggcg ccgctcagca aggaggtagg tgaggccgtg gccaaacgct tccacctacc 8580

aggcatccgc cagggctacg gcctgacaga aacaaccagc gccattctga tcacccccga 8640

aggggacgac aagcctggcg cagtaggcaa ggtggtgccc ttcttcgagg ctaaggtggt 8700

ggacttggac accggtaaga cactgggtgt gaaccagcgc ggcgagctgt gcgtccgtgg 8760

ccccatgatc atgagcggct acgttaacaa ccccgaggct acaaacgctc tcatcgacaa 8820

ggacggctgg ctgcacagcg gcgacatcgc ctactgggac gaggacgagc acttcttcat 8880

cgtggaccgg ctgaagagcc tgatcaaata caagggctac caggtagccc cagccgaact 8940

ggagagcatc ctgctgcaac accccaacat cttcgacgcc ggggtcgccg gcctgcccga 9000

cgacgatgcc ggcgagctgc ccgccgcagt cgtcgtgctg gaacacggta aaaccatgac 9060

cgagaaggag atcgtggact atgtggccag ccaggttaca accgccaaga agctgcgcgg 9120

tggtgttgtg ttcgtggacg aggtgcctaa aggactgacc ggcaagttgg acgcccgcaa 9180

gatccgcgag attctcatta aggccaagaa gggcggcaag atcgccgtgt aattcgaacg 9240

gccgtatcac gcccaaacat ttacagccgc ggtgtcaaaa accgcgtgga cgtggttaac 9300

atccctgctg ggaggatcag ccgtaattat tataattggc ttggtgctgg ctactattgt 9360

ggccatgtac gtgctgacca accagaaaca taattgaata cagcagcaat tggcaagctg 9420

cttacataga actcgcggcg attggcatgc cgccttaaaa tttttatttt atttttttctt 9480

ttcttttccg aatcggattt tgtttttaat atttcaaaaa aaaaaaaaaa aaaaaaaaaa 9540

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 9595

<210> 16
<211> 139
<212> PRT
<213> Artificial Sequence

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

<400> 16
Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys
1 5 10 15

Arg Ala Ser Gln Ser Ile Asn Ser Tyr Leu Asp Trp Tyr Gln Gln Lys
20 25 30

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

Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
50 55 60

Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr
65 70 75 80

Cys Gln Gln Tyr Tyr Ser Thr Pro Phe Thr Phe Gly Pro Gly Thr Lys

85 90 95

Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro
100 105 110

Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu
115 120 125

Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val
130 135

<210> 17
<211> 167
<212> PRT
<213> Artificial Sequence

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

<400> 17
Gly Val Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser
1 5 10 15

Gly Phe Thr Phe Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro
20 25 30

Gly Lys Gly Leu Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn
35 40 45

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

Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu
65 70 75 80

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Pro Arg Gly Ala Thr Leu
85 90 95

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

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

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

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
145 150 155 160

Ala Leu Thr Ser Gly Val His
165

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 18
Gly Phe Thr Phe Ser Ser Tyr Gly Met His
1 5 10

<210> 19
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 19
Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
1 5 10 15

<210> 20
<211> 16
<212> PRT
<213> Artificial Sequence

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

<400> 20
Asp Pro Arg Gly Ala Thr Leu Tyr Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 21
<211> 11
<212> PRT

<213> Artificial Sequence

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

<400> 21
Arg Ala Ser Gln Ser Ile Asn Ser Tyr Leu Asp
1 5 10

<210> 22
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 22
Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 23
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 23
Gln Gln Tyr Tyr Ser Thr Pro Phe Thr
1 5

<210> 24
<211> 108
<212> PRT
<213> Artificial Sequence

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

<400> 24
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

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

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

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

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

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

<210> 25
<211> 121
<212> PRT
<213> Artificial Sequence

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

<400> 25

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15

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

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

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

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

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

Ala Arg Glu Gly Gly Trp Phe Gly Glu Leu Ala Phe Asp Tyr Trp Gly
            100                 105                 110
```

Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 26
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 26
Arg Tyr Trp Met Ser
1   5

<210> 27
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 27
Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val Lys
1   5   10   15

Gly

<210> 28
<211> 12
<212> PRT
<213> Artificial Sequence

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

<400> 28
Glu Gly Gly Trp Phe Gly Glu Leu Ala Phe Asp Tyr
1   5   10

<210> 29
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 29
Arg Ala Ser Gln Arg Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 30
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 30
Asp Ala Ser Ser Arg Ala Thr
1 5

<210> 31
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 31
Gln Gln Tyr Gly Ser Leu Pro Trp Thr
1 5

<210> 32
<211> 2019
<212> DNA
<213> Artificial Sequence

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

<400> 32
gcccgggcat ttaaatgcga tcgcatcgat tacgactcta gaatagtcta gtccgcaggc 60

caccatgcag atcttcgtga agaccctgac cggcaagacc atcaccctag aggtggagcc 120

cagtgacacc atcgagaacg tgaaggccaa gatccaggat aaagagggca tccccccctga 180

ccagcagagg ctgatctttg ccggcaagca gctggaagat ggccgcaccc tctctgatta 240

caacatccag aaggagtcaa ccctgcacct ggtccttcgc ctgagaggtg ccatgtttca 300

ggcgctgagc gaaggctgca ccccgtatga tattaaccag atgctgaacg tgctgggcga 360

tcatcaggtc tcaggccttg agcagcttga gagtataatc aactttgaaa aactgactga 420

atggaccagt tctaatgtta tgcctatcct gtctcctctg acaaagggca tcctgggctt 480

cgtgtttacc ctgaccgtgc cttctgagag aggacttagc tgcattagcg aagcggatgc 540

gaccaccccg gaaagcgcga acctgggcga agaaattctg agccagctgt atctttggcc 600

aagggtgacc taccattccc ctagttatgc ttaccaccaa tttgaaagac gagccaaata 660

taaaagacac ttccccggct ttggccagag cctgctgttt ggctaccctg tgtacgtgtt 720

cggcgattgc gtgcagggcg attgggatgc gattcgcttt cgctattgcg cgccgccggg 780

ctatgcgctg ctgcgctgca acgataccaa ctatagcgct ctgctggctg tgggggccct 840

agaaggaccc aggaatcagg actggcttgg tgtcccaaga caacttgtaa ctcggatgca 900

ggctattcag aatgccggcc tgtgtaccct ggtggccatg ctggaagaga caatcttctg 960

gctgcaagcg tttctgatgg cgctgaccga tagcggcccg aaaaccaaca ttattgtgga 1020

tagccagtat gtgatgggca ttagcaaacc gagctttcag gaatttgtgg attgggaaaa 1080

cgtgagcccg gaactgaaca gcaccgatca gccgttttgg caagccggaa tcctggccag 1140

aaatctggtg cctatggtgg ccacagtgca gggccagaac ctgaagtacc agggtcagtc 1200

actagtcatc tctgcttcta tcattgtctt caacctgctg gaactggaag gtgattatcg 1260

agatgatggc aacgtgtggg tgcatacccc gctgagcccg cgcaccctga acgcgtgggt 1320

gaaagcggtg gaagaaaaaa aaggtattcc agttcaccta gagctggcca gtatgaccaa 1380

catggagctc atgagcagta ttgtgcatca gcaggtcaga acatacggcc ccgtgttcat 1440

gtgtctcggc ggactgctta caatggtggc tggtgctgtg tggctgacag tgcgagtgct 1500

cgagctgttc cgggccgcgc agctggccaa cgacgtggtc ctccagatca tggagctttg 1560

tggtgcagcg tttcgccagg tgtgccatac caccgtgccg tggccgaacg cgagcctgac 1620

cccgaaatgg aacaacgaaa ccacccagcc ccagatcgcc aactgcagcg tgtatgactt 1680

ttttgtgtgg ctccattatt attctgttcg agacacactt tggccaaggg tgacctacca 1740

tatgaacaaa tatgcgtatc atatgctgga aagacgagcc aaatataaaa gaggaccagg 1800

acctggcgct aaatttgtgg ccgcctggac actgaaagcc gctgctggtc ctggacctgg 1860

ccagtacatc aaggccaaca gcaagttcat cggcatcacc gaactcggac ccggaccagg 1920

ctgatgattt cgaaatttaa ataagcttgc ggccgctagg gataacaggg taattatcac 1980

gcccaaacat ttacagccgc ggtgtcaaaa accgcgtgg 2019

<210> 33
<211> 619
<212> PRT
<213> Artificial Sequence

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

<400> 33
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

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

Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys
35 40 45

Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
50 55 60

Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Ala Met Phe Gln Ala
65 70 75 80

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

Leu Gly Asp His Gln Val Ser Gly Leu Glu Gln Leu Glu Ser Ile Ile
100 105 110

Asn Phe Glu Lys Leu Thr Glu Trp Thr Ser Ser Asn Val Met Pro Ile
115 120 125

Leu Ser Pro Leu Thr Lys Gly Ile Leu Gly Phe Val Phe Thr Leu Thr
130 135 140

Val Pro Ser Glu Arg Gly Leu Ser Cys Ile Ser Glu Ala Asp Ala Thr
145 150 155 160

Thr Pro Glu Ser Ala Asn Leu Gly Glu Glu Ile Leu Ser Gln Leu Tyr
165 170 175

Leu Trp Pro Arg Val Thr Tyr His Ser Pro Ser Tyr Ala Tyr His Gln
180 185 190

```
Phe Glu Arg Arg Ala Lys Tyr Lys Arg His Phe Pro Gly Phe Gly Gln
        195                 200                 205

Ser Leu Leu Phe Gly Tyr Pro Val Tyr Val Phe Gly Asp Cys Val Gln
    210                 215                 220

Gly Asp Trp Asp Ala Ile Arg Phe Arg Tyr Cys Ala Pro Pro Gly Tyr
225                 230                 235                 240

Ala Leu Leu Arg Cys Asn Asp Thr Asn Tyr Ser Ala Leu Leu Ala Val
                245                 250                 255

Gly Ala Leu Glu Gly Pro Arg Asn Gln Asp Trp Leu Gly Val Pro Arg
            260                 265                 270

Gln Leu Val Thr Arg Met Gln Ala Ile Gln Asn Ala Gly Leu Cys Thr
        275                 280                 285

Leu Val Ala Met Leu Glu Glu Thr Ile Phe Trp Leu Gln Ala Phe Leu
    290                 295                 300

Met Ala Leu Thr Asp Ser Gly Pro Lys Thr Asn Ile Ile Val Asp Ser
305                 310                 315                 320

Gln Tyr Val Met Gly Ile Ser Lys Pro Ser Phe Gln Glu Phe Val Asp
                325                 330                 335

Trp Glu Asn Val Ser Pro Glu Leu Asn Ser Thr Asp Gln Pro Phe Trp
            340                 345                 350

Gln Ala Gly Ile Leu Ala Arg Asn Leu Val Pro Met Val Ala Thr Val
        355                 360                 365

Gln Gly Gln Asn Leu Lys Tyr Gln Gly Gln Ser Leu Val Ile Ser Ala
    370                 375                 380

Ser Ile Ile Val Phe Asn Leu Leu Glu Leu Glu Gly Asp Tyr Arg Asp
385                 390                 395                 400

Asp Gly Asn Val Trp Val His Thr Pro Leu Ser Pro Arg Thr Leu Asn
                405                 410                 415
```

```
Ala Trp Val Lys Ala Val Glu Glu Lys Lys Gly Ile Pro Val His Leu
            420                 425                 430

Glu Leu Ala Ser Met Thr Asn Met Glu Leu Met Ser Ser Ile Val His
        435                 440                 445

Gln Gln Val Arg Thr Tyr Gly Pro Val Phe Met Cys Leu Gly Gly Leu
    450                 455                 460

Leu Thr Met Val Ala Gly Ala Val Trp Leu Thr Val Arg Val Leu Glu
465                 470                 475                 480

Leu Phe Arg Ala Ala Gln Leu Ala Asn Asp Val Val Leu Gln Ile Met
                485                 490                 495

Glu Leu Cys Gly Ala Ala Phe Arg Gln Val Cys His Thr Thr Val Pro
            500                 505                 510

Trp Pro Asn Ala Ser Leu Thr Pro Lys Trp Asn Asn Glu Thr Thr Gln
        515                 520                 525

Pro Gln Ile Ala Asn Cys Ser Val Tyr Asp Phe Phe Val Trp Leu His
    530                 535                 540

Tyr Tyr Ser Val Arg Asp Thr Leu Trp Pro Arg Val Thr Tyr His Met
545                 550                 555                 560

Asn Lys Tyr Ala Tyr His Met Leu Glu Arg Arg Ala Lys Tyr Lys Arg
                565                 570                 575

Gly Pro Gly Pro Gly Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala
            580                 585                 590

Ala Ala Gly Pro Gly Pro Gly Gln Tyr Ile Lys Ala Asn Ser Lys Phe
        595                 600                 605

Ile Gly Ile Thr Glu Leu Gly Pro Gly Pro Gly
    610                 615
```

<210> 34
<211> 1638
<212> DNA
<213> Artificial Sequence

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

<400> 34
atggccggga tgttccaggc actgtccgaa ggctgcacac cctatgatat taaccagatg 60

ctgaatgtcc tgggagacca ccaggtctct ggcctggagc agctggagag catcatcaac 120

ttcgagaagc tgaccgagtg gacaagctcc aatgtgatgc ctatcctgtc cccactgacc 180

aagggcatcc tgggcttcgt gtttaccctg acagtgcctt ctgagcgggg cctgtcttgc 240

atcagcgagg cagacgcaac cacaccagag tccgccaatc tgggcgagga gatcctgtct 300

cagctgtacc tgtggccccg ggtgacatat cactcccctt cttacgccta tcaccagttc 360

gagcggagag ccaagtacaa gagacacttc ccaggctttg gccagtctct gctgttcggc 420

taccccgtgt acgtgttcgg cgattgcgtg cagggcgact gggatgccat ccggtttaga 480

tactgcgcac cacctggata tgcactgctg aggtgtaacg acaccaatta ttccgccctg 540

ctggcagtgg gcgccctgga gggccctcgc aatcaggatt ggctgggcgt gccaaggcag 600

ctggtgacac gcatgcaggc catccagaac gcaggcctgt gcaccctggt ggcaatgctg 660

gaggagacaa tcttctggct gcaggccttt ctgatggccc tgaccgacag cggccccaag 720

acaaacatca tcgtggattc ccagtacgtg atgggcatct ccaagccttc tttccaggag 780

tttgtggact gggagaacgt gagcccagag ctgaattcca ccgatcagcc attctggcag 840

gcaggaatcc tggcaaggaa cctggtgcct atggtggcca cagtgcaggg ccagaatctg 900

aagtaccagg gccagagcct ggtcatcagc gcctccatca tcgtgtttaa cctgctggag 960

ctggagggcg actatcggga cgatggcaac gtgtgggtgc acaccccact gagccccaga 1020

acactgaacg cctgggtgaa ggccgtggag gagaagaagg gcatcccagt gcacctggag 1080

ctggcctcca tgaccaatat ggagctgatg tctagcatcg tgcaccagca ggtgaggaca 1140

tacggacccg tgttcatgtg cctgggaggc ctgctgacca tggtggcagg agccgtgtgg 1200

ctgacagtgc gggtgctgga gctgttcaga gccgcccagc tggccaacga tgtggtgctg 1260

cagatcatgg agctgtgcgg agcagccttt cgccaggtgt gccacaccac agtgccatgg 1320

cccaatgcct ccctgacccc caagtggaac aatgagacaa cacagcctca gatcgccaac 1380

tgtagcgtgt acgacttctt cgtgtggctg cactactata gcgtgaggga taccctgtgg 1440

ccccgcgtga cataccacat gaataagtac gcctatcaca tgctggagag gcgcgccaag 1500

tataagagag gccctggccc aggcgcaaag tttgtggcag catggaccct gaaggccgcc 1560

gccggccccg gccccggcca gtatatcaag gctaacagta agttcattgg aatcacagag 1620

ctgggacccg gacctgga 1638

<210> 35
<211> 546
<212> PRT
<213> Artificial Sequence

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

<400> 35
Met Ala Gly Met Phe Gln Ala Leu Ser Glu Gly Cys Thr Pro Tyr Asp
1 5 10 15

Ile Asn Gln Met Leu Asn Val Leu Gly Asp His Gln Val Ser Gly Leu
20 25 30

Glu Gln Leu Glu Ser Ile Ile Asn Phe Glu Lys Leu Thr Glu Trp Thr
35 40 45

Ser Ser Asn Val Met Pro Ile Leu Ser Pro Leu Thr Lys Gly Ile Leu
50 55 60

Gly Phe Val Phe Thr Leu Thr Val Pro Ser Glu Arg Gly Leu Ser Cys
65 70 75 80

Ile Ser Glu Ala Asp Ala Thr Thr Pro Glu Ser Ala Asn Leu Gly Glu
85 90 95

Glu Ile Leu Ser Gln Leu Tyr Leu Trp Pro Arg Val Thr Tyr His Ser
100 105 110

Pro Ser Tyr Ala Tyr His Gln Phe Glu Arg Arg Ala Lys Tyr Lys Arg
115 120 125

His Phe Pro Gly Phe Gly Gln Ser Leu Leu Phe Gly Tyr Pro Val Tyr
130 135 140

Val Phe Gly Asp Cys Val Gln Gly Asp Trp Asp Ala Ile Arg Phe Arg
145 150 155 160

Tyr Cys Ala Pro Pro Gly Tyr Ala Leu Leu Arg Cys Asn Asp Thr Asn

```
                165                 170                 175

Tyr Ser Ala Leu Leu Ala Val Gly Ala Leu Glu Gly Pro Arg Asn Gln
            180                 185                 190

Asp Trp Leu Gly Val Pro Arg Gln Leu Val Thr Arg Met Gln Ala Ile
        195                 200                 205

Gln Asn Ala Gly Leu Cys Thr Leu Val Ala Met Leu Glu Glu Thr Ile
    210                 215                 220

Phe Trp Leu Gln Ala Phe Leu Met Ala Leu Thr Asp Ser Gly Pro Lys
225                 230                 235                 240

Thr Asn Ile Ile Val Asp Ser Gln Tyr Val Met Gly Ile Ser Lys Pro
                245                 250                 255

Ser Phe Gln Glu Phe Val Asp Trp Glu Asn Val Ser Pro Glu Leu Asn
            260                 265                 270

Ser Thr Asp Gln Pro Phe Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu
        275                 280                 285

Val Pro Met Val Ala Thr Val Gln Gly Gln Asn Leu Lys Tyr Gln Gly
    290                 295                 300

Gln Ser Leu Val Ile Ser Ala Ser Ile Ile Val Phe Asn Leu Leu Glu
305                 310                 315                 320

Leu Glu Gly Asp Tyr Arg Asp Asp Gly Asn Val Trp Val His Thr Pro
                325                 330                 335

Leu Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Ala Val Glu Glu Lys
            340                 345                 350

Lys Gly Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Met Glu
        355                 360                 365

Leu Met Ser Ser Ile Val His Gln Gln Val Arg Thr Tyr Gly Pro Val
    370                 375                 380

Phe Met Cys Leu Gly Gly Leu Leu Thr Met Val Ala Gly Ala Val Trp
385                 390                 395                 400
```

```
Leu Thr Val Arg Val Leu Glu Leu Phe Arg Ala Ala Gln Leu Ala Asn
                405                 410                 415

Asp Val Val Leu Gln Ile Met Glu Leu Cys Gly Ala Ala Phe Arg Gln
            420                 425                 430

Val Cys His Thr Thr Val Pro Trp Pro Asn Ala Ser Leu Thr Pro Lys
        435                 440                 445

Trp Asn Asn Glu Thr Thr Gln Pro Gln Ile Ala Asn Cys Ser Val Tyr
    450                 455                 460

Asp Phe Phe Val Trp Leu His Tyr Tyr Ser Val Arg Asp Thr Leu Trp
465                 470                 475                 480

Pro Arg Val Thr Tyr His Met Asn Lys Tyr Ala Tyr His Met Leu Glu
                485                 490                 495

Arg Arg Ala Lys Tyr Lys Arg Gly Pro Gly Pro Gly Ala Lys Phe Val
            500                 505                 510

Ala Ala Trp Thr Leu Lys Ala Ala Ala Gly Pro Gly Pro Gly Gln Tyr
        515                 520                 525

Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu Gly Pro Gly
    530                 535                 540

Pro Gly
545
```

<210> 36
<211> 2019
<212> DNA
<213> Artificial Sequence

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

<400> 36
gcccgggcat ttaaatgcga tcgcatcgat tacgactcta gaatagtcta gtccgcaggc 60

caccatgcag atcttcgtga agaccctgac cggcaagacc atcaccctag aggtggagcc 120

cagtgacacc atcgagaacg tgaaggccaa gatccaggat aaagagggca tccccctga 180

ccagcagagg ctgatctttg ccggcaagca gctggaagat ggccgcaccc tctctgatta 240

caacatccag aaggagtcaa ccctgcacct ggtccttcgc ctgagaggtg ccatgtttca 300

ggcgctgagc gaaggctgca ccccgtatga tattaaccag atgctgaacg tgctgggcga 360

tcatcagttt aagcacatca aagcctttga ccggacattt gctaacaacc caggtcccat 420

ggttgtgttt gccacacctg ggcctatcct gtctcctctg acaaagggca tcctgggctt 480

cgtgtttacc ctgaccgtgc cttctgagag aggacttagc tgcattagcg aagcggatgc 540

gaccaccccg gaaagcgcga acctgggcga agaaattctg agccagctgt atctttggcc 600

aagggtgacc taccattccc ctagttatgc ttaccaccaa tttgaaagac gagccaaata 660

taaaagacac ttccccggct ttggccagag cctgctgttt ggctaccctg tgtacgtgtt 720

cggcgattgc gtgcagggcg attgggatgc gattcgcttt cgctattgcg cgccgccggg 780

ctatgcgctg ctgcgctgca acgataccaa ctatagcgct ctgctggctg tgggggccct 840

agaaggaccc aggaatcagg actggcttgg tgtcccaaga caacttgtaa ctcggatgca 900

ggctattcag aatgccggcc tgtgtaccct ggtggccatg ctggaagaga caatcttctg 960

gctgcaagcg tttctgatgg cgctgaccga tagcggcccg aaaaccaaca ttattgtgga 1020

tagccagtat gtgatgggca ttagcaaacc gagctttcag gaatttgtgg attgggaaaa 1080

cgtgagcccg gaactgaaca gcaccgatca gccgttttgg caagccggaa tcctggccag 1140

aaatctggtg cctatggtgg ccacagtgca gggccagaac ctgaagtacc agggtcagtc 1200

actagtcatc tctgcttcta tcattgtctt caacctgctg gaactggaag gtgattatcg 1260

agatgatggc aacgtgtggg tgcatacccc gctgagcccg cgcaccctga acgcgtgggt 1320

gaaagcggtg gaagaaaaaa aaggtattcc agttcaccta gagctggcca gtatgaccaa 1380

catggagctc atgagcagta ttgtgcatca gcaggtcaga acatacggcc ccgtgttcat 1440

gtgtctcggc ggactgctta caatggtggc tggtgctgtg tggctgacag tgcgagtgct 1500

cgagctgttc cgggccgcgc agctggccaa cgacgtggtc ctccagatca tggagctttg 1560

tggtgcagcg tttcgccagg tgtgccatac caccgtgccg tggccgaacg cgagcctgac 1620

cccgaaatgg aacaacgaaa ccacccagcc ccagatcgcc aactgcagcg tgtatgactt 1680

ttttgtgtgg ctccattatt attctgttcg agacacactt tggccaaggg tgacctacca 1740

tatgaacaaa tatgcgtatc atatgctgga aagacgagcc aaatataaaa gaggaccagg 1800

acctggcgct aaatttgtgg ccgcctggac actgaaagcc gctgctggtc ctggacctgg 1860

ccagtacatc aaggccaaca gcaagttcat cggcatcacc gaactcggac ccggaccagg 1920

ctgatgattt cgaaatttaa ataagcttgc ggccgctagg gataacaggg taattatcac 1980

gcccaaacat ttacagccgc ggtgtcaaaa accgcgtgg 2019

<210> 37
<211> 619
<212> PRT
<213> Artificial Sequence

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

<400> 37
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

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

Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys
35 40 45

Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
50 55 60

Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Ala Met Phe Gln Ala
65 70 75 80

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

Leu Gly Asp His Gln Phe Lys His Ile Lys Ala Phe Asp Arg Thr Phe
100 105 110

Ala Asn Asn Pro Gly Pro Met Val Val Phe Ala Thr Pro Gly Pro Ile
115 120 125

Leu Ser Pro Leu Thr Lys Gly Ile Leu Gly Phe Val Phe Thr Leu Thr
130 135 140

Val Pro Ser Glu Arg Gly Leu Ser Cys Ile Ser Glu Ala Asp Ala Thr
145 150 155 160

```
Thr Pro Glu Ser Ala Asn Leu Gly Glu Glu Ile Leu Ser Gln Leu Tyr
                165                 170                 175

Leu Trp Pro Arg Val Thr Tyr His Ser Pro Ser Tyr Ala Tyr His Gln
            180                 185                 190

Phe Glu Arg Arg Ala Lys Tyr Lys Arg His Phe Pro Gly Phe Gly Gln
        195                 200                 205

Ser Leu Leu Phe Gly Tyr Pro Val Tyr Val Phe Gly Asp Cys Val Gln
    210                 215                 220

Gly Asp Trp Asp Ala Ile Arg Phe Arg Tyr Cys Ala Pro Pro Gly Tyr
225                 230                 235                 240

Ala Leu Leu Arg Cys Asn Asp Thr Asn Tyr Ser Ala Leu Leu Ala Val
                245                 250                 255

Gly Ala Leu Glu Gly Pro Arg Asn Gln Asp Trp Leu Gly Val Pro Arg
            260                 265                 270

Gln Leu Val Thr Arg Met Gln Ala Ile Gln Asn Ala Gly Leu Cys Thr
        275                 280                 285

Leu Val Ala Met Leu Glu Glu Thr Ile Phe Trp Leu Gln Ala Phe Leu
    290                 295                 300

Met Ala Leu Thr Asp Ser Gly Pro Lys Thr Asn Ile Ile Val Asp Ser
305                 310                 315                 320

Gln Tyr Val Met Gly Ile Ser Lys Pro Ser Phe Gln Glu Phe Val Asp
                325                 330                 335

Trp Glu Asn Val Ser Pro Glu Leu Asn Ser Thr Asp Gln Pro Phe Trp
            340                 345                 350

Gln Ala Gly Ile Leu Ala Arg Asn Leu Val Pro Met Val Ala Thr Val
        355                 360                 365

Gln Gly Gln Asn Leu Lys Tyr Gln Gly Gln Ser Leu Val Ile Ser Ala
    370                 375                 380

Ser Ile Ile Val Phe Asn Leu Leu Glu Leu Glu Gly Asp Tyr Arg Asp
```

385 390 395 400

Asp Gly Asn Val Trp Val His Thr Pro Leu Ser Pro Arg Thr Leu Asn
405 410 415

Ala Trp Val Lys Ala Val Glu Glu Lys Lys Gly Ile Pro Val His Leu
420 425 430

Glu Leu Ala Ser Met Thr Asn Met Glu Leu Met Ser Ser Ile Val His
435 440 445

Gln Gln Val Arg Thr Tyr Gly Pro Val Phe Met Cys Leu Gly Gly Leu
450 455 460

Leu Thr Met Val Ala Gly Ala Val Trp Leu Thr Val Arg Val Leu Glu
465 470 475 480

Leu Phe Arg Ala Ala Gln Leu Ala Asn Asp Val Val Leu Gln Ile Met
485 490 495

Glu Leu Cys Gly Ala Ala Phe Arg Gln Val Cys His Thr Thr Val Pro
500 505 510

Trp Pro Asn Ala Ser Leu Thr Pro Lys Trp Asn Asn Glu Thr Thr Gln
515 520 525

Pro Gln Ile Ala Asn Cys Ser Val Tyr Asp Phe Phe Val Trp Leu His
530 535 540

Tyr Tyr Ser Val Arg Asp Thr Leu Trp Pro Arg Val Thr Tyr His Met
545 550 555 560

Asn Lys Tyr Ala Tyr His Met Leu Glu Arg Arg Ala Lys Tyr Lys Arg
565 570 575

Gly Pro Gly Pro Gly Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala
580 585 590

Ala Ala Gly Pro Gly Pro Gly Gln Tyr Ile Lys Ala Asn Ser Lys Phe
595 600 605

Ile Gly Ile Thr Glu Leu Gly Pro Gly Pro Gly
610 615

<210> 38
<211> 228
<212> DNA
<213> Artificial Sequence

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

<400> 38
atgcagatct tcgtgaagac cctgaccggc aagaccatca ccctagaggt ggagcccagt 60

gacaccatcg agaacgtgaa ggccaagatc caggataaag agggcatccc ccctgaccag 120

cagaggctga tctttgccgg caagcagctg gaagatggcc gcaccctctc tgattacaac 180

atccagaagg agtcaaccct gcacctggtc cttcgcctga gaggtggc 228

<210> 39
<211> 228
<212> DNA
<213> Artificial Sequence

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

<400> 39
atgcagatct tcgtgaagac cctgaccggc aagaccatca ccctagaggt ggagcccagt 60

gacaccatcg agaacgtgaa ggccaagatc caggataaag agggcatccc ccctgaccag 120

cagaggctga tctttgccgg caagcagctg gaagatggcc gcaccctctc tgattacaac 180

atccagaagg agtcaaccct gcacctggtc cttcgcctga gaggtgcc 228

<210> 40
<211> 78
<212> DNA
<213> Homo sapiens

<400> 40
atggccgtca tggcgccccg aaccctcgtc ctgctactct cgggggctct ggccctgacc 60

cagacctggg cgggctct 78

<210> 41
<211> 201
<212> DNA
<213> Homo sapiens

<400> 41

ccgtcttccc agcccaccat ccccatcgtg ggcatcattg ctggcctggt tctctttgga 60

gctgtgatca ctggagctgt ggtcgctgct gtgatgtgga ggaggaagag ctcagataga 120

aaaggaggga gctactctca ggctgcaagc agtgacagtg cccagggctc tgatgtgtct 180

ctcacagctt gtaaagtgtg a 201

<210> 42
<211> 60
<212> DNA
<213> Artificial Sequence

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

<400> 42
atggagaccg atacactgct gctgtgggtg ctgctcctgt gggtgccagg aagcacaggc 60

<210> 43
<211> 3178
<212> DNA
<213> Homo sapiens

<400> 43
ggcaccgatt cggggcctgc ccggacttcg ccgcacgctg cagaacctcg cccagcgccc 60

accatgcccc ggcagctcag cgcggcggcc gcgctcttcg cgtccctggc cgtaattttg 120

cacgatggca gtcaaatgag agcaaaagca tttccagaaa ccagagatta ttctcaacct 180

actgcagcag caacagtaca ggacataaaa aaacctgtcc agcaaccagc taagcaagca 240

cctcaccaaa ctttagcagc aagattcatg gatggtcata tcacctttca aacagcggcc 300

acagtaaaaa ttccaacaac taccccagca actacaaaaa acactgcaac caccagccca 360

attacctaca ccctggtcac aacccaggcc acacccaaca actcacacac agctcctcca 420

gttactgaag ttacagtcgg ccctagctta gcccccttatt cactgccacc caccatcacc 480

ccaccagctc atacagctgg aaccagttca tcaaccgtca gccacacaac tgggaacacc 540

actcaaccca gtaaccagac cacccttcca gcaactttat cgatagcact gcacaaaagc 600

acaaccggtc agaagcctga tcaacccacc catgccccag gaacaacggc agctgcccac 660

aataccaccc gcacagctgc acctgcctcc acggttcctg ggcccaccct tgcacctcag 720

ccatcgtcag tcaagactgg aatttatcag gttctaaacg gaagcagact ctgtataaaa 780

gcagagatgg ggatacagct gattgttcaa gacaaggagt cggtttttc acctcggaga 840

tacttcaaca tcgaccccaa cgcaacgcaa gcctctggga actgtggcac ccgaaaatcc 900

aaccttctgt tgaattttca gggcggattt gtgaatctca catttaccaa ggatgaagaa 960

tcatattata tcagtgaagt gggagcctat ttgaccgtct cagatccaga gacagtttac 1020

caaggaatca aacatgcggt ggtgatgttc cagacagcag tcgggcattc cttcaagtgc 1080

gtgagtgaac agagcctcca gttgtcagcc cacctgcagg tgaaaacaac cgatgtccaa 1140

cttcaagcct ttgattttga agatgaccac tttggaaatg tggatgagtg ctcgtctgac 1200

tacacaattg tgcttcctgt gattggggcc atcgtggttg gtctctgcct tatgggtatg 1260

ggtgtctata aaatccgcct aaggtgtcaa tcatctggat accagagaat ctaattgttg 1320

cccgggggga atgaaaataa tggaatttag agaactcttt catcccttcc aggatggatg 1380

ttgggaaatt ccctcagagt gtgggtcctt caaacaatgt aaaccaccat cttctattca 1440

aatgaagtga gtcatgtgtg atttaagttc aggcagcaca tcaatttcta aatacttttt 1500

gtttatttta tgaaagatat agtgagctgt ttattttcta gtttccttta gaatatttta 1560

gccactcaaa gtcaacattt gagatatgtt gaattaacat aatatatgta aagtagaata 1620

agccttcaaa ttataaacca agggtcaatt gtaactaata ctactgtgtg tgcattgaag 1680

attttatttt acccttgatc ttaacaaagc ctttgctttg ttatcaaatg gactttcagt 1740

gcttttacta tctgtgtttt atggtttcat gtaacataca tattcctggt gtagcactta 1800

actccttttc cactttaaat ttgtttttgt tttttgagac ggagtttcac tcttgtcacc 1860

caggctggag tacagtggca cgatctcggc ttatggcaac ctccgcctcc cgggttcaag 1920

tgattctcct gcttcagctt cccgagtagc tgggattaca ggcacacact accacgcctg 1980

gctaattttt gtatttttat tatagacggg tttcaccatg ttggccagac tggtcttgaa 2040

ctcttgacct caggtgatcc acccacctca gcctcccaaa gtgctgggat tacaggcatg 2100

agccattgcg cccggcctta aatgtttttt ttaatcatca aaaagaacaa catatctcag 2160

gttgtctaag tgtttttatg taaaaccaac aaaaagaaca aatcagctta tatttttttat 2220

cttgatgact cctgctccag aattgctaga ctaagaatta ggtggctaca gatggtagaa 2280

ctaaacaata agcaagagac aataataatg gcccttaatt attaacaaag tgccagagtc 2340

taggctaagc actttatcta tatctcattt cattctcaca acttataagt gaatgagtaa 2400

actgagactt aagggaactg aatcacttaa atgtcacctg gctaactgat ggcagagcca 2460

gagcttgaat tcatgttggt ctgacatcaa ggtctttggt cttctcccta caccaagtta 2520

cctacaagaa caatgacacc acactctgcc tgaaggctca cacctcatac cagcatacgc 2580

tcaccttaca gggaaatggg tttatccagg atcatgagac attagggtag atgaaaggag 2640

agctttgcag ataacaaaat agcctatcct taataaatcc tccactctct ggaaggagac 2700

tgaggggctt tgtaaaacat tagtcagttg ctcattttta tgggattgct tagctgggct 2760

gtaaagatga aggcatcaaa taaactcaaa gtatttttaa atttttttga taatagagaa 2820

acttcgctaa ccaactgttc tttcttgagt gtatagcccc atcttgtggt aacttgctgc 2880

ttctgcactt catatccata tttcctattg ttcactttat tctgtagagc agcctgccaa 2940

gaattttatt tctgctgttt tttttgctgc taaagaaagg aactaagtca ggatgttaac 3000

agaaaagtcc acataaccct agaattctta gtcaaggaat aattcaagtc agcctagaga 3060

ccatgttgac tttcctcatg tgtttcctta tgactcagta agttggcaag gtcctgactt 3120

tagtcttaat aaaacattga attgtagtaa aggtttttgc aataaaaact tactttgg 3178

<210> 44
<211> 1858
<212> DNA
<213> Mus sp.

<400> 44
attccggagg tgaaaaacaa tggcacaacg tgtataatgg ccagcttctc tgcctccttt 60

ctgaccacct acgagactgc gaatggttct cagatcgtga acatttccct gccagcctct 120

gcagaagtac tgaaaaatgg cagttcttgt ggtaaagaaa atgtttctga ccccagcctc 180

acaattactt ttggaagagg atatttactg acactcaact tcacaaaaaa tacaacacgt 240

tacagtgtcc agcatatgta ttttacatat aacttgtcag atacagaaca ttttcccaat 300

gccatcagca aagagatcta caccatggat tccacaactg acatcaaggc agacatcaac 360

aaagcatacc ggtgtgtcag tgatatccgg gtctacatga agaatgtgac cgttgtgctc 420

cgggatgcca ctatccaggc ctacctgtcg agtggcaact tcagcaagga agagacacac 480

tgcacacagg atggaccttc cccaaccact gggccaccca gcccctcacc accacttgtg 540

cccacaaacc ccactgtatc caagtacaat gttactggta acaacggaac ctgcctgctg 600

gcctctatgg cactgcaact gaatatcacc tacctgaaaa aggacaacaa gacggtgacc 660

agagcgttca acatcagccc aaatgacaca tctagtggga gttgcggtat caacttggtg 720

accctgaaag tggagaacaa gaacagagcc ctggaattgc agtttgggat gaatgccagc 780

tctagcctgt ttttcttgca aggagtgcgc ttgaatatga ctcttcctga tgccctagtg 840

cccacattca gcatctccaa ccattcactg aaagctcttc aggccactgt gggaaactca 900

tacaagtgca acactgagga acacatcttt gtcagcaaga tgctctccct caatgtcttc 960

agtgtgcagg tccaggcttt caaggtggac agtgacaggt ttgggtctgt ggaagagtgt 1020

gttcaggatg gtaacaacat gttgatcccc attgctgtgg gcggtgccct ggcagggctg 1080

atcctcatcg tcctcattgc ctacctcatt ggcaggaaga ggagtcacgc cggctatcag 1140

accatctagc ctggtgggca ggtgcaccag agatgcacag gggcctgttc tcacatcccc 1200

aagcttagat aggtgtggaa gggaggcaca ctttctggca aactgtttta aaatctgctt 1260

tatcaaatgt gaagttcatc ttgcaacatt tactatgcac aaaggaataa ctattgaaat 1320

gacggtgtta attttgctaa ctgggttaaa tattgatgag aaggctccac tgatttgact 1380

tttaagactt ggtgtttggt tcttcattct tttactcaga tttaagccta tcaaagggat 1440

actctggtcc agaccttggc ctggcaaggg tggctgatgg ttaggctgca cacacttaag 1500

aagcaacggg agcagggaag gcttgcacac aggcacgcac agggtcaacc tctggacact 1560

tggcttgggc tacctggcct tgggggggct gaactctggc atctggctgg gtacacaccc 1620

ccccaatttc tgtgctctgc cacccgtgag ctgccacttt cctaaataga aaatggcatt 1680

atttttattt actttttgt aaagtgattt ccagtcttgt gttggcgttc agggtggccc 1740

tgtctctgca ctgtgtacaa taatagattc acactgctga cgtgtcttgc agcgtaggtg 1800

ggttgtacac tgggcatcag ctcacgtaat gcattgcctg taacgatgct aataaaaa 1858

<210> 45
<211> 2339
<212> DNA
<213> Homo sapiens

<400> 45
ggcccaaccg ccgcccgcgc ccccgctctc cgcaccgtac ccggccgcct cgcgccatgg 60

cggcccccgg cagcgcccgg cgacccctgc tgctgctact gctgttgctg ctgctcggcc 120

tcatgcattg tgcgtcagca gcaatgttta tggtgaaaaa tggcaacggg accgcgtgca 180

taatggccaa cttctctgct gccttctcag tgaactacga caccaagagt ggccctaaga 240

acatgacctt tgacctgcca tcagatgcca cagtggtgct caaccgcagc tcctgtggaa 300

aagagaacac ttctgacccc agtctcgtga ttgcttttgg aagaggacat acactcactc 360

tcaatttcac gagaaatgca acacgttaca gcgtccagct catgagtttt gtttataact 420

tgtcagacac acacctttc cccaatgcga gctccaaaga aatcaagact gtggaatcta 480

taactgacat cagggcagat atagataaaa aatacagatg tgttagtggc acccaggtcc 540

acatgaacaa cgtgaccgta acgctccatg atgccaccat ccaggcgtac ctttccaaca 600

gcagcttcag caggggagag acacgctgtg aacaagacag gccttcccca accacagcgc 660

cccctgcgcc acccagcccc tcgccctcac ccgtgcccaa gagcccctct gtggacaagt 720

acaacgtgag cggcaccaac gggacctgcc tgctggccag catggggctg cagctgaacc 780

tcacctatga gaggaaggac aacacgacgg tgacaaggct tctcaacatc aaccccaaca 840

agacctcggc cagcgggagc tgcggcgccc acctggtgac tctggagctg cacagcgagg 900

gcaccaccgt cctgctcttc cagttcggga tgaatgcaag ttctagccgg tttttcctac 960

aaggaatcca gttgaataca attcttcctg acgccagaga ccctgccttt aaagctgcca 1020

acggctccct gcgagcgctg caggccacag tcggcaattc ctacaagtgc aacgcggagg 1080

agcacgtccg tgtcacgaag gcgttttcag tcaatatatt caaagtgtgg gtccaggctt 1140

tcaaggtgga aggtggccag tttggctctg tggaggagtg tctgctggac gagaacagca 1200

tgctgatccc catcgctgtg ggtggtgccc tggcggggct ggtcctcatc gtcctcatcg 1260

cctacctcgt cggcaggaag aggagtcacg caggctacca gactatctag cctggtgcac 1320

gcaggcacag cagctgcagg ggcctctgtt cctttctctg ggcttagggt cctgtcgaag 1380

gggaggcaca ctttctggca aacgtttctc aaatctgctt catccaatgt gaagttcatc 1440

ttgcagcatt tactatgcac aacagagtaa ctatcgaaat gacggtgtta attttgctaa 1500

ctgggttaaa tattttgcta actggttaaa cattaatatt taccaaagta ggattttgag 1560

ggtgggggtg ctctctctga gggggtgggg gtgccgctgt ctctgagggg tgggggtgcc 1620

gctgtctctg aggggtgggg gtgccgctct ctctgagggg gtgggggtgc cgctttctct 1680

gaggggggtgg gggtgccgct ctctctgagg gggtgggggt gctgctctct ccgaggggtg 1740

gaatgccgct gtctctgagg ggtgggggtg ccgctctaaa ttggctccat atcatttgag 1800

tttagggttc tggtgtttgg tttcttcatt ctttactgca ctcagattta agccttacaa 1860

agggaaagcc tctggccgtc acacgtagga cgcatgaagg tcactcgtgg tgaggctgac 1920

atgctcacac attacaacag tagagaggga aaatcctaag acagaggaac tccagagatg 1980

agtgtctgga gcgcttcagt tcagctttaa aggccaggac gggccacacg tggctggcgg 2040

cctcgttcca gtggcggcac gtccttgggc gtctctaatg tctgcagctc aagggctggc 2100

actttttaa atataaaaat gggtgttatt tttatttttt tttgtaaagt gatttttggt 2160

cttctgttga cattcggggt gatcctgttc tgcgctgtgt acaatgtgag atcggtgcgt 2220

tctcctgatg ttttgccgtg gcttggggat tgtacacggg accagctcac gtaatgcatt 2280

gcctgtaaca atgtaataaa aagcctcttt cttttaaaaa aaaaaaaaaa aaaaaaaaa 2339

<210> 46
<211> 45
<212> DNA
<213> Artificial Sequence

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

<400> 46
cagtacatca aggccaacag caagttcatc ggcatcaccg aactc 45

<210> 47
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 47
Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu
1 5 10 15

<210> 48
<211> 39
<212> DNA
<213> Artificial Sequence

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

<400> 48
gctaaatttg tggctgcctg gacactgaaa gccgccgct 39

<210> 49
<211> 13
<212> PRT
<213> Artificial Sequence

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

<400> 49
Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala
1 5 10

<210> 50
<211> 593
<212> DNA
<213> Woodchuck hepatitis virus

<400> 50
aatcaacctc tggattacaa aatttgtgaa agattgactg gtattcttaa ctatgttgct 60

ccttttacgc tatgtggata cgctgcttta atgcctttgt atcatgctat tgcttcccgt 120

atggctttca ttttctcctc cttgtataaa tcctggttgc tgtctcttta tgaggagttg 180

tggcccgttg tcaggcaacg tggcgtggtg tgcactgtgt ttgctgacgc aacccccact 240

ggttggggca ttgccaccac ctgtcagctc ctttccggga ctttcgcttt ccccctccct 300

attgccacgg cggaactcat cgccgcctgc cttgcccgct gctggacagg ggctcggctg 360

ttgggcactg acaattccgt ggtgttgtcg gggaagctga cgtcctttcc atggctgctc 420

gcctgtgttg ccacctggat tctgcgcggg acgtccttct gctacgtccc ttcggccctc 480

aatccagcgg accttccttc ccgcggcctg ctgccggctc tgcggcctct tccgcgtctt 540

cgccttcgcc ctcagacgag tcggatctcc ctttgggccg cctccccgcc tgt 593

<210> 51
<211> 589
<212> DNA
<213> Artificial Sequence

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

<400> 51
tctccccccc ccccctctcc ctcccccccc cctaacgtta ctggccgaag ccgcttggaa 60

taaggccggt gtgcgtttgt ctatatgtta ttttccacca tattgccgtc ttttggcaat 120

gtgagggccc ggaaacctgg ccctgtcttc ttgacgagca ttcctagggg tctttccccct 180

ctcgccaaag gaatgcaagg tctgttgaat gtcgtgaagg aagcagttcc tctggaagct 240

tcttgaagac aaacaacgtc tgtagcgacc ctttgcaggc agcggaaccc cccacctggc 300

gacaggtgcc tctgcggcca aaagccacgt gtataagata cacctgcaaa ggcggcacaa 360

ccccagtgcc acgttgtgag ttggatagtt gtggaaagag tcaaatggct ctcctcaagc 420

gtattcaaca aggggctgaa ggatgcccag aaggtacccc attgtatggg atctgatctg 480

gggcctcggt gcacatgctt tacatgtgtt tagtcgaggt taaaaaaacg tctaggcccc 540

ccgaaccacg gggacgtggt tttcctttga aaaacacgat gataatatg 589

<210> 52
<211> 720
<212> DNA
<213> Artificial Sequence

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

<400> 52
atggtgagca agggcgagga gctgttcacc ggggtggtgc ccatcctggt cgagctggac 60

ggcgacgtaa acggccacaa gttcagcgtg tccggcgagg gcgagggcga tgccacctac 120

ggcaagctga ccctgaagtt catctgcacc accggcaagc tgcccgtgcc ctggcccacc 180

ctcgtgacca ccctgaccta cggcgtgcag tgcttcagcc gctaccccga ccacatgaag 240

cagcacgact tcttcaagtc cgccatgccc gaaggctacg tccaggagcg caccatcttc 300

ttcaaggacg acggcaacta caagacccgc gccgaggtga agttcgaggg cgacaccctg 360

gtgaaccgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac 420

aagctggagt acaactacaa cagccacaac gtctatatca tggccgacaa gcagaagaac 480

ggcatcaagg tgaacttcaa gatccgccac aacatcgagg acggcagcgt gcagctcgcc 540

gaccactacc agcagaacac ccccatcggc gacggccccg tgctgctgcc cgacaaccac 600

tacctgagca cccagtccgc cctgagcaaa gaccccaacg agaagcgcga tcacatggtc 660

ctgctggagt tcgtgaccgc cgccgggatc actctcggca tggacgagct gtacaagtag 720

<210> 53
<211> 1563
<212> DNA
<213> Artificial Sequence

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

<400> 53
atgctgctgc tgctgctgct gctgggcctg aggctacagc tctccctggg catcatccca 60

gttgaggagg agaacccgga cttctggaac cgcgaggcag ccgaggccct gggtgccgcc 120

aagaagctgc agcctgcaca gacagccgcc aagaacctca tcatcttcct gggcgatggg 180

atgggggtgt ctacggtgac agctgccagg atcctaaaag ggcagaagaa ggacaaactg 240

gggcctgaga taccctggc catggaccgc ttcccatatg tggctctgtc caagacatac 300

aatgtagaca aacatgtgcc agacagtgga gccacagcca cggcctacct gtgcggggtc 360

aagggcaact tccagaccat tggcttgagt gcagccgccc gctttaacca gtgcaacacg 420

acacgcggca acgaggtcat ctccgtgatg aatcgggcca agaaagcagg gaagtcagtg 480

ggagtggtaa ccaccacacg agtgcagcac gcctcgccag ccggcaccta cgcccacacg 540

gtgaaccgca actggtactc ggacgccgac gtgcctgcct cggcccgcca ggaggggtgc 600

caggacatcg ctacgcagct catctccaac atggacattg acgtgatcct aggtggaggc 660

cgaaagtaca tgtttcgcat gggaacccca gaccctgagt acccagatga ctacagccaa 720

ggtgggacca ggctggacgg gaagaatctg gtgcaggaat ggctggcgaa gcgccagggt 780

gcccggtatg tgtggaaccg cactgagctc atgcaggctt ccctggaccc gtctgtgacc 840

catctcatgg gtctctttga gcctggagac atgaaatacg agatccaccg agactccaca 900

ctggacccct ccctgatgga gatgacagag gctgccctgc gcctgctgag caggaacccc 960

cgcggcttct tcctcttcgt ggagggtggt cgcatcgacc atggtcatca tgaaagcagg 1020

gcttaccggg cactgactga gacgatcatg ttcgacgacg ccattgagag ggcgggccag 1080

ctcaccagcg aggaggacac gctgagcctc gtcactgccg accactccca cgtcttctcc 1140

ttcggaggct acccccctgcg agggagctcc atcttcgggc tggcccctgg caaggcccgg 1200

gacaggaagg cctacacggt cctcctatac ggaaacggtc caggctatgt gctcaaggac 1260

ggcgcccggc cggatgttac cgagagcgag agcgggagcc ccgagtatcg gcagcagtca 1320

gcagtgcccc tggacgaaga gacccacgca ggcgaggacg tggcggtgtt cgcgcgcggc 1380

ccgcaggcgc acctggttca cggcgtgcag gagcagacct tcatagcgca cgtcatggcc 1440

ttcgccgcct gcctggagcc ctacaccgcc tgcgacctgg cgccccccgc cggcaccacc 1500

gacgccgcgc acccgggtta ctctagagtc ggggcggccg gccgcttcga gcagacatga 1560

taa 1563

<210> 54
<211> 1653
<212> DNA
<213> Artificial Sequence

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

<400> 54
atggaagatg ccaaaaacat taagaagggc ccagcgccat tctacccact cgaagacggg 60

accgccggcg agcagctgca caaagccatg aagcgctacg ccctggtgcc cggcaccatc 120

gcctttaccg acgcacatat cgaggtggac attacctacg ccgagtactt cgagatgagc 180

gttcggctgg cagaagctat gaagcgctat gggctgaata caaaccatcg gatcgtggtg 240

tgcagcgaga atagcttgca gttcttcatg cccgtgttgg gtgccctgtt catcggtgtg 300

gctgtggccc cagctaacga catctacaac gagcgcgagc tgctgaacag catgggcatc 360

agccagccca ccgtcgtatt cgtgagcaag aaagggctgc aaaagatcct caacgtgcaa 420

aagaagctac cgatcataca aaagatcatc atcatggata gcaagaccga ctaccagggc 480

ttccaaagca tgtacacctt cgtgacttcc catttgccac ccggcttcaa cgagtacgac 540

ttcgtgcccg agagcttcga ccgggacaaa accatcgccc tgatcatgaa cagtagtggc 600

agtaccggat tgcccaaggg cgtagcccta ccgcaccgca ccgcttgtgt ccgattcagt 660

catgcccgcg accccatctt cggcaaccag atcatccccg acaccgctat cctcagcgtg 720

gtgccatttc accacggctt cggcatgttc accacgctgg gctacttgat ctgcggcttt 780

cgggtcgtgc tcatgtaccg cttcgaggag gagctattct tgcgcagctt gcaagactat 840

aagattcaat ctgccctgct ggtgcccaca ctatttagct tcttcgctaa gagcactctc 900

atcgacaagt acgacctaag caacttgcac gagatcgcca gcggcggggc gccgctcagc 960

aaggaggtag gtgaggccgt ggccaaacgc ttccacctac caggcatccg ccagggctac 1020

ggcctgacag aaacaaccag cgccattctg atcacccccg aaggggacga caagcctggc 1080

gcagtaggca aggtggtgcc cttcttcgag gctaaggtgg tggacttgga caccggtaag 1140

acactgggtg tgaaccagcg cggcgagctg tgcgtccgtg gccccatgat catgagcggc 1200

tacgttaaca accccgaggc tacaaacgct ctcatcgaca aggacggctg gctgcacagc 1260

ggcgacatcg cctactggga cgaggacgag cacttcttca tcgtggaccg gctgaagagc 1320

ctgatcaaat acaagggcta ccaggtagcc ccagccgaac tggagagcat cctgctgcaa 1380

caccccaaca tcttcgacgc cggggtcgcc ggcctgcccg acgacgatgc cggcgagctg 1440

cccgccgcag tcgtcgtgct ggaacacggt aaaaccatga ccgagaagga gatcgtggac 1500

tatgtggcca gccaggttac aaccgccaag aagctgcgcg gtggtgttgt gttcgtggac 1560

gaggtgccta aaggactgac cggcaagttg gacgcccgca agatccgcga gattctcatt 1620

aaggccaaga agggcggcaa gatcgccgtg taa 1653

<210> 55
<211> 66

<212> DNA
<213> Foot-and-mouth disease virus

<400> 55
gtaaagcaaa cactgaactt tgaccttctc aagttggctg gagacgttga gtccaatcct 60

gggccc 66

<210> 56
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 56
Gly Pro Gly Pro Gly
1 5

<210> 57
<211> 30876
<212> DNA
<213> Artificial Sequence

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

<400> 57
catcatcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatgacattg 600

attattgact agttgttaat agtaatcaat tacggggtca ttagttcata gcccatatat 660

ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc 720

ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca 780

ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta 840

tcatatgcca agtccgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta 900

tgcccagtac atgaccttac gggactttcc tacttggcag tacatctacg tattagtcat 960

cgctattacc atggtgatgc ggttttggca gtacaccaat gggcgtggat agcggtttga 1020

ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca 1080

aaatcaacgg gactttccaa aatgtcgtaa taaccccgcc ccgttgacgc aaatgggcgg 1140

taggcgtgta cggtgggagg tctatataag cagagctcgt ttagtgaacc gtcagatcgc 1200

ctggaacgcc atccacgctg ttttgacctc catagaagac agcgatcgcg ccaccatggc 1260

cgggatgttc caggcactgt ccgaaggctg cacaccctat gatattaacc agatgctgaa 1320

tgtcctggga gaccaccagg tctctggcct ggagcagctg gagagcatca tcaacttcga 1380

gaagctgacc gagtggacaa gctccaatgt gatgcctatc ctgtccccac tgaccaaggg 1440

catcctgggc ttcgtgttta ccctgacagt gccttctgag cggggcctgt cttgcatcag 1500

cgaggcagac gcaaccacac cagagtccgc caatctgggc gaggagatcc tgtctcagct 1560

gtacctgtgg ccccgggtga catatcactc cccttcttac gcctatcacc agttcgagcg 1620

gagagccaag tacaagagac acttcccagg ctttggccag tctctgctgt tcggctaccc 1680

cgtgtacgtg ttcggcgatt gcgtgcaggg cgactgggat gccatccggt ttagatactg 1740

cgcaccacct ggatatgcac tgctgaggtg taacgacacc aattattccg ccctgctggc 1800

agtgggcgcc ctggagggcc ctcgcaatca ggattggctg ggcgtgccaa ggcagctggt 1860

gacacgcatg caggccatcc agaacgcagg cctgtgcacc ctggtggcaa tgctggagga 1920

gacaatcttc tggctgcagg cctttctgat ggccctgacc gacagcggcc ccaagacaaa 1980

catcatcgtg gattcccagt acgtgatggg catctccaag ccttctttcc aggagtttgt 2040

ggactgggag aacgtgagcc cagagctgaa ttccaccgat cagccattct ggcaggcagg 2100

aatcctggca aggaacctgg tgcctatggt ggccacagtg cagggccaga atctgaagta 2160

ccagggccag agcctggtca tcagcgcctc catcatcgtg tttaacctgc tggagctgga 2220

gggcgactat cgggacgatg gcaacgtgtg ggtgcacacc ccactgagcc ccagaacact 2280

gaacgcctgg gtgaaggccg tggaggagaa gaagggcatc ccagtgcacc tggagctggc 2340

ctccatgacc aatatggagc tgatgtctag catcgtgcac cagcaggtga ggacatacgg 2400

acccgtgttc atgtgcctgg gaggcctgct gaccatggtg gcaggagccg tgtggctgac 2460

agtgcgggtg ctggagctgt tcagagccgc ccagctggcc aacgatgtgg tgctgcagat 2520

catggagctg tgcggagcag cctttcgcca ggtgtgccac accacagtgc catggcccaa 2580

tgcctccctg acccccaagt ggaacaatga gacaacacag cctcagatcg ccaactgtag 2640

cgtgtacgac ttcttcgtgt ggctgcacta ctatagcgtg agggataccc tgtggccccg 2700

cgtgacatac cacatgaata agtacgccta tcacatgctg gagaggcgcg ccaagtataa 2760

gagaggccct ggcccaggcg caaagtttgt ggcagcatgg accctgaagg ccgccgccgg 2820

ccccggcccc ggccagtata tcaaggctaa cagtaagttc attggaatca cagagctggg 2880

acccggacct ggataatgag tttaaactcc catttaaatg tgagggttaa tgcttcgagc 2940

agacatgata agatacattg atgagtttgg acaaaccaca actagaatgc agtgaaaaaa 3000

atgctttatt tgtgaaattt gtgatgctat tgctttattt gtaaccatta taagctgcaa 3060

taaacaagtt aacaacaaca attgcattca ttttatgttt caggttcagg gggagatgtg 3120

ggaggttttt taaagcaagt aaaacctcta caaatgtggt aaaataacta taacggtcct 3180

aaggtagcga gtgagtagtg ttctggggcg ggggaggacc tgcatgaggg ccagaataac 3240

tgaaatctgt gcttttctgt gtgttgcagc agcatgagcg gaagcggctc ctttgaggga 3300

ggggtattca gcccttatct gacggggcgt ctcccctcct gggcgggagt gcgtcagaat 3360

gtgatgggat ccacggtgga cggccggccc gtgcagcccg cgaactcttc aaccctgacc 3420

tatgcaaccc tgagctcttc gtcgttggac gcagctgccg ccgcagctgc tgcatctgcc 3480

gccagcgccg tgcgcggaat ggccatgggc gccggctact acggcactct ggtggccaac 3540

tcgagttcca ccaataatcc cgccagcctg aacgaggaga agctgttgct gctgatggcc 3600

cagctcgagg ccttgaccca gcgcctgggc gagctgaccc agcaggtggc tcagctgcag 3660

gagcagacgc gggccgcggt tgccacggtg aaatccaaat aaaaaatgaa tcaataaata 3720

aacggagacg gttgttgatt ttaacacaga gtctgaatct ttatttgatt tttcgcgcgc 3780

ggtaggccct ggaccaccgg tctcgatcat tgagcacccg gtggatcttt tccaggaccc 3840

ggtagaggtg ggcttggatg ttgaggtaca tgggcatgag cccgtcccgg gggtggaggt 3900

agctccattg cagggcctcg tgctcggggg tggtgttgta aatcacccag tcatagcagg 3960

ggcgcagggc atggtgttgc acaatatctt tgaggaggag actgatggcc acgggcagcc 4020

ctttggtgta ggtgtttaca aatctgttga gctgggaggg atgcatgcgg ggggagatga 4080

ggtgcatctt ggcctggatc ttgagattgg cgatgttacc gcccagatcc cgcctggggt 4140

tcatgttgtg caggaccacc agcacggtgt atccggtgca cttggggaat ttatcatgca 4200

acttggaagg gaaggcgtga aagaatttgg cgacgccttt gtgcccgccc aggttttcca 4260

tgcactcatc catgatgatg gcgatgggcc cgtgggcggc ggcctgggca aagacgtttc 4320

gggggtcgga cacatcatag ttgtggtcct gggtgaggtc atcataggcc attttaatga 4380

atttggggcg gagggtgccg gactggggga caaaggttcc ctcgatcccg ggggcgtagt 4440

tcccctcaca gatctgcatc tcccaggctt tgagctcgga ggggggggatc atgtccacct 4500

gcggggcgat aaagaacacg gtttccgggg cgggggagat gagctgggcc gaaagcaagt 4560

tccggagcag ctgggacttg ccgcagccgg tggggccgta gatgaccccg atgaccggct 4620

gcaggtggta gttgagggag agacagctgc cgtcctcccg gaggaggggg gccacctcgt 4680

tcatcatctc gcgcacgtgc atgttctcgc gcaccagttc cgccaggagg cgctctcccc 4740

ccagggatag gagctcctgg agcgaggcga agtttttcag cggcttgagt ccgtcggcca 4800

tgggcatttt ggagagggtt tgttgcaaga gttccaggcg gtcccagagc tcggtgatgt 4860

gctctacggc atctcgatcc agcagacctc ctcgtttcgc gggttgggac ggctgcggga 4920

gtagggcacc agacgatggg cgtccagcgc agccagggtc cggtccttcc agggtcgcag 4980

cgtccgcgtc agggtggtct ccgtcacggt gaaggggtgc gcgccgggct gggcgcttgc 5040

gagggtgcgc ttcaggctca tccggctggt cgaaaaccgc tcccgatcgg cgccctgcgc 5100

gtcggccagg tagcaattga ccatgagttc gtagttgagc gcctcggccg cgtggccttt 5160

ggcgcggagc ttacctttgg aagtctgccc gcaggcggga cagaggaggg acttgagggc 5220

gtagagcttg ggggcgagga agacggactc gggggcgtag gcgtccgcgc cgcagtgggc 5280

gcagacggtc tcgcactcca cgagccaggt gaggtcgggc tggtcggggt caaaaaccag 5340

tttcccgccg ttctttttga tgcgtttctt acctttggtc tccatgagct cgtgtccccg 5400

ctgggtgaca aagaggctgt ccgtgtcccc gtagaccgac tttatgggcc ggtcctcgag 5460

cggtgtgccg cggtcctcct cgtagaggaa ccccgcccac tccgagacga aagcccgggt 5520

ccaggccagc acgaaggagg ccacgtggga cgggtagcgg tcgttgtcca ccagcgggtc 5580

caccttttcc agggtatgca aacacatgtc cccctcgtcc acatccagga aggtgattgg 5640

cttgtaagtg taggccacgt gaccgggggt cccggccggg ggggtataaa agggtgcggg 5700

tccctgctcg tcctcactgt cttccggatc gctgtccagg agcgccagct gttggggtag 5760

gtattccctc tcgaaggcgg gcatgacctc ggcactcagg ttgtcagttt ctagaaacga 5820

ggaggatttg atattgacgg tgccggcgga gatgcctttc aagagcccct cgtccatctg 5880

gtcagaaaag acgatctttt tgttgtcgag cttggtggcg aaggagccgt agagggcgtt 5940

ggagaggagc ttggcgatgg agcgcatggt ctggtttttt tccttgtcgg cgcgctcctt 6000

ggcggcgatg ttgagctgca cgtactcgcg cgccacgcac ttccattcgg ggaagacggt 6060

ggtcagctcg tcgggcacga ttctgacctg ccagccccga ttatgcaggg tgatgaggtc 6120

cacactggtg gccacctcgc cgcgcagggg ctcattagtc cagcagaggc gtccgccctt 6180

gcgcgagcag aaggggggca gggggtccag catgacctcg tcgggggggt cggcatcgat 6240

ggtgaagatg ccgggcagga ggtcggggtc aaagtagctg atggaagtgg ccagatcgtc 6300

cagggcagct tgccattcgc gcacggccag cgcgcgctcg tagggactga ggggcgtgcc 6360

ccagggcatg ggatgggtaa gcgcggaggc gtacatgccg cagatgtcgt agacgtagag 6420

gggctcctcg aggatgccga tgtaggtggg gtagcagcgc cccccgcgga tgctggcgcg 6480

cacgtagtca tacagctcgt gcgagggggc gaggagcccc gggcccaggt tggtgcgact 6540

gggcttttcg gcgcggtaga cgatctggcg gaaaatggca tgcgagttgg aggagatggt 6600

gggcctttgg aagatgttga agtgggcgtg gggcagtccg accgagtcgc ggatgaagtg 6660

ggcgtaggag tcttgcagct tggcgacgag ctcggcggtg actaggacgt ccagagcgca 6720

gtagtcgagg gtctcctgga tgatgtcata cttgagctgt ccctttttgtt tccacagctc 6780

gcggttgaga aggaactctt cgcggtcctt ccagtactct tcgaggggga acccgtcctg 6840

atctgcacgg taagagccta gcatgtagaa ctggttgacg gccttgtagg cgcagcagcc 6900

cttctccacg gggagggcgt aggcctgggc ggccttgcgc agggaggtgt gcgtgagggc 6960

gaaagtgtcc ctgaccatga ccttgaggaa ctggtgcttg aagtcgatat cgtcgcagcc 7020

cccctgctcc cagagctgga agtccgtgcg cttcttgtag gcggggttgg gcaaagcgaa 7080

agtaacatcg ttgaagagga tcttgcccgc gcggggcata aagttgcgag tgatgcggaa 7140

aggttggggc acctcggccc ggttgttgat gacctgggcg gcgagcacga tctcgtcgaa 7200

gccgttgatg ttgtggccca cgatgtagag ttccacgaat cgcggacggc ccttgacgtg 7260

gggcagtttc ttgagctcct cgtaggtgag ctcgtcgggg tcgctgagcc cgtgctgctc 7320

gagcgcccag tcggcgagat gggggttggc gcggaggaag gaagtccaga gatccacggc 7380

cagggcggtt tgcagacggt cccggtactg acggaactgc tgcccgacgg ccatttttttc 7440

gggggtgacg cagtagaagg tgcgggggtc cccgtgccag cgatcccatt tgagctggag 7500

ggcgagatcg agggcgagct cgacgagccg gtcgtccccg gagagtttca tgaccagcat 7560

gaaggggacg agctgcttgc cgaaggaccc catccaggtg taggtttcca catcgtaggt 7620

gaggaagagc ctttcggtgc gaggatgcga gccgatgggg aagaactgga tctcctgcca 7680

ccaattggag gaatggctgt tgatgtgatg gaagtagaaa tgccgacggc gcgccgaaca 7740

ctcgtgcttg tgtttataca agcggccaca gtgctcgcaa cgctgcacgg gatgcacgtg 7800

ctgcacgagc tgtacctgag ttcctttgac gaggaatttc agtgggaagt ggagtcgtgg 7860

cgcctgcatc tcgtgctgta ctacgtcgtg gtggtcggcc tggccctctt ctgcctcgat 7920

ggtggtcatg ctgacgagcc cgcgcgggag gcaggtccag acctcggcgc gagcgggtcg 7980

gagagcgagg acgagggcgc gcaggccgga gctgtccagg gtcctgagac gctgcggagt 8040

caggtcagtg ggcagcggcg gcgcgcggtt gacttgcagg agtttttcca gggcgcgcgg 8100

gaggtccaga tggtacttga tctccaccgc gccattggtg gcgacgtcga tggcttgcag 8160

ggtcccgtgc ccctggggtg tgaccaccgt cccccgtttc ttcttgggcg gctggggcga 8220

cgggggcggt gcctcttcca tggttagaag cggcggcgag gacgcgcgcc gggcggcagg 8280

ggcggctcgg ggcccggagg caggggcggc aggggcacgt cggcgccgcg cgcgggtagg 8340

ttctggtact gcgcccggag aagactggcg tgagcgacga cgcgacggtt gacgtcctgg 8400

atctgacgcc tctgggtgaa ggccacggga cccgtgagtt tgaacctgaa agagagttcg 8460

acagaatcaa tctcggtatc gttgacggcg gcctgccgca ggatctcttg cacgtcgccc 8520

gagttgtcct ggtaggcgat ctcggtcatg aactgctcga tctcctcctc ttgaaggtct 8580

ccgcggccgg cgcgctccac ggtggccgcg aggtcgttgg agatgcggcc catgagctgc 8640

gagaaggcgt tcatgcccgc ctcgttccag acgcggctgt agaccacgac gccctcggga 8700

tcgcgggcgc gcatgaccac ctgggcgagg ttgagctcca cgtggcgcgt gaagaccgcg 8760

tagttgcaga ggcgctggta gaggtagttg agcgtggtgg cgatgtgctc ggtgacgaag 8820

aaatacatga tccagcggcg gagcggcatc tcgctgacgt cgcccagcgc ctccaaacgt 8880

tccatggcct cgtaaaagtc cacggcgaag ttgaaaaact gggagttgcg cgccgagacg 8940

gtcaactcct cctccagaag acggatgagc tcggcgatgg tggcgcgcac ctcgcgctcg 9000

aaggcccccg ggagttcctc cacttcctct tcttcctcct ccactaacat ctcttctact 9060

tcctcctcag gcggcagtgg tggcggggga gggggcctgc gtcgccggcg gcgcacgggc 9120

agacggtcga tgaagcgctc gatggtctcg ccgcgccggc gtcgcatggt ctcggtgacg 9180

gcgcgcccgt cctcgcgggg ccgcagcgtg aagacgccgc cgcgcatctc caggtggccg 9240

ggggggtccc cgttgggcag ggagagggcg ctgacgatgc atcttatcaa ttgccccgta 9300

gggactccgc gcaaggacct gagcgtctcg agatccacgg gatctgaaaa ccgctgaacg 9360

aaggcttcga gccagtcgca gtcgcaaggt aggctgagca cggtttcttc tggcgggtca 9420

tgttggttgg gagcggggcg ggcgatgctg ctggtgatga agttgaaata ggcggttctg 9480

agacggcgga tggtggcgag gagcaccagg tctttgggcc cggcttgctg gatgcgcaga 9540

cggtcggcca tgccccaggc gtggtcctga cacctggcca ggtccttgta gtagtcctgc 9600

atgagccgct ccacgggcac ctcctcctcg cccgcgcggc cgtgcatgcg cgtgagcccg 9660

aagccgcgct ggggctggac gagcgccagg tcggcgacga cgcgctcggc gaggatggct 9720

tgctggatct gggtgagggt ggtctggaag tcatcaaagt cgacgaagcg gtggtaggct 9780

ccggtgttga tggtgtagga gcagttggcc atgacggacc agttgacggt ctggtggccc 9840

ggacgcacga gctcgtggta cttgaggcgc gagtaggcgc gcgtgtcgaa gatgtagtcg 9900

ttgcaggtgc gcaccaggta ctggtagccg atgaggaagt gcggcggcgg ctggcggtag 9960

agcggccatc gctcggtggc gggggcgccg ggcgcgaggt cctcgagcat ggtgcggtgg 10020

tagccgtaga tgtacctgga catccaggtg atgccggcgg cggtggtgga ggcgcgcggg 10080

aactcgcgga cgcggttcca gatgttgcgc agcggcagga agtagttcat ggtgggcacg 10140

gtctggcccg tgaggcgcgc gcagtcgtgg atgctctata cgggcaaaaa cgaaagcggt 10200

cagcggctcg actccgtggc ctggaggcta agcgaacggg ttgggctgcg cgtgtacccc 10260

ggttcgaatc tcgaatcagg ctggagccgc agctaacgtg gtattggcac tcccgtctcg 10320

acccaagcct gcaccaaccc tccaggatac ggaggcgggt cgttttgcaa ctttttttg 10380

gaggccggat gagactagta agcgcggaaa gcggccgacc gcgatggctc gctgccgtag 10440

tctggagaag aatcgccagg gttgcgttgc ggtgtgcccc ggttcgaggc cggccggatt 10500

ccgcggctaa cgagggcgtg gctgccccgt cgtttccaag accccatagc cagccgactt 10560

ctccagttac ggagcgagcc cctcttttgt tttgtttgtt tttgccagat gcatcccgta 10620

ctgcggcaga tgcgccccca ccaccctcca ccgcaacaac agccccctcc acagccggcg 10680

cttctgcccc cgccccagca gcaacttcca gccacgaccg ccgcggccgc cgtgagcggg 10740

gctggacaga gttatgatca ccagctggcc ttggaagagg gcgaggggct ggcgcgcctg 10800

ggggcgtcgt cgccggagcg gcacccgcgc gtgcagatga aaagggacgc tcgcgaggcc 10860

tacgtgccca agcagaacct gttcagagac aggagcggcg aggagcccga ggagatgcgc 10920

gcggcccggt tccacgcggg gcgggagctg cggcgcggcc tggaccgaaa gagggtgctg 10980

agggacgagg atttcgaggc ggacgagctg acggggatca gccccgcgcg cgcgcacgtg 11040

gccgcggcca acctggtcac ggcgtacgag cagaccgtga aggaggagag caacttccaa 11100

aaatccttca acaaccacgt gcgcaccctg atcgcgcgcg aggaggtgac cctgggcctg 11160

atgcacctgt gggacctgct ggaggccatc gtgcagaacc ccaccagcaa gccgctgacg 11220

gcgcagctgt tcctggtggt gcagcatagt cgggacaacg aagcgttcag ggaggcgctg 11280

ctgaatatca ccgagcccga gggccgctgg ctcctggacc tggtgaacat tctgcagagc 11340

atcgtggtgc aggagcgcgg gctgccgctg tccgagaagc tggcggccat caacttctcg 11400

gtgctgagtt tgggcaagta ctacgctagg aagatctaca agaccccgta cgtgcccata 11460

gacaaggagg tgaagatcga cgggttttac atgcgcatga ccctgaaagt gctgaccctg 11520

agcgacgatc tgggggtgta ccgcaacgac aggatgcacc gtgcggtgag cgccagcagg 11580

cggcgcgagc tgagcgacca ggagctgatg catagtctgc agcgggccct gaccggggcc 11640

gggaccgagg gggagagcta ctttgacatg ggcgcggacc tgcactggca gcccagccgc 11700

cgggccttgg aggcggcggc aggaccctac gtagaagagg tggacgatga ggtggacgag 11760

gagggcgagt acctggaaga ctgatggcgc gaccgtattt ttgctagatg caacaacaac 11820

agccacctcc tgatcccgcg atgcgggcgg cgctgcagag ccagccgtcc ggcattaact 11880

cctcggacga ttggacccag gccatgcaac gcatcatggc gctgacgacc cgcaaccccg 11940

aagcctttag acagcagccc caggccaacc ggctctcggc catcctggag gccgtggtgc 12000

cctcgcgctc caaccccacg cacgagaagg tcctggccat cgtgaacgcg ctggtggaga 12060

acaaggccat ccgcggcgac gaggccggcc tggtgtacaa cgcgctgctg gagcgcgtgg 12120

cccgctacaa cagcaccaac gtgcagacca acctggaccg catggtgacc gacgtgcgcg 12180

aggccgtggc ccagcgcgag cggttccacc gcgagtccaa cctgggatcc atggtggcgc 12240

tgaacgcctt cctcagcacc cagcccgcca acgtgccccg gggccaggag gactacacca 12300

acttcatcag cgccctgcgc ctgatggtga ccgaggtgcc ccagagcgag gtgtaccagt 12360

ccgggccgga ctacttcttc cagaccagtc gccagggctt gcagaccgtg aacctgagcc 12420

aggctttcaa gaacttgcag ggcctgtggg gcgtgcaggc cccggtcggg gaccgcgcga 12480

cggtgtcgag cctgctgacg ccgaactcgc gcctgctgct gctgctggtg gccccttca 12540

cggacagcgg cagcatcaac cgcaactcgt acctgggcta cctgattaac ctgtaccgcg 12600

aggccatcgg ccaggcgcac gtggacgagc agacctacca ggagatcacc cacgtgagcc 12660

gcgccctggg ccaggacgac ccgggcaacc tggaagccac cctgaacttt ttgctgacca 12720

accggtcgca gaagatcccg ccccagtacg cgctcagcac cgaggaggag cgcatcctgc 12780

gttacgtgca gcagagcgtg ggcctgttcc tgatgcagga gggggccacc cccagcgccg 12840

cgctcgacat gaccgcgcgc aacatggagc ccagcatgta cgccagcaac cgcccgttca 12900

tcaataaact gatggactac ttgcatcggg cggccgccat gaactctgac tatttcacca 12960

acgccatcct gaatccccac tggctcccgc cgccggggtt ctacacgggc gagtacgaca 13020

tgcccgaccc caatgacggg ttcctgtggg acgatgtgga cagcagcgtg ttctcccccc 13080

gaccgggtgc taacgagcgc cccttgtgga agaaggaagg cagcgaccga cgcccgtcct 13140

cggcgctgtc cggccgcgag ggtgctgccg cggcggtgcc cgaggccgcc agtcctttcc 13200

cgagcttgcc cttctcgctg aacagtatcc gcagcagcga gctgggcagg atcacgcgcc 13260

cgcgcttgct gggcgaagag gagtacttga atgactcgct gttgagaccc gagcgggaga 13320

agaacttccc caataacggg atagaaagcc tggtggacaa gatgagccgc tggaagacgt 13380

atgcgcagga gcacagggac gatccccggg cgtcgcaggg ggccacgagc cggggcagcg 13440

ccgcccgtaa acgccggtgg cacgacaggc agcggggaca gatgtgggac gatgaggact 13500

ccgccgacga cagcagcgtg ttggacttgg gtgggagtgg taacccgttc gctcacctgc 13560

gcccccgtat cgggcgcatg atgtaagaga aaccgaaaat aaatgatact caccaaggcc 13620

atggcgacca gcgtgcgttc gtttcttctc tgttgttgtt gtatctagta tgatgaggcg 13680

tgcgtacccg gagggtcctc ctccctcgta cgagagcgtg atgcagcagg cgatggcggc 13740

ggcggcgatg cagcccccgc tggaggctcc ttacgtgccc ccgcggtacc tggcgcctac 13800

ggaggggcgg aacagcattc gttactcgga gctggcaccc ttgtacgata ccacccggtt 13860

gtacctggtg gacaacaagt cggcggacat cgcctcgctg aactaccaga acgaccacag 13920

caacttcctg accaccgtgg tgcagaacaa tgacttcacc cccacggagg ccagcaccca 13980

gaccatcaac tttgacgagc gctcgcggtg gggcggccag ctgaaaacca tcatgcacac 14040

caacatgccc aacgtgaacg agttcatgta cagcaacaag ttcaaggcgc gggtgatggt 14100

ctcccgcaag acccccaatg gggtgacagt gacagaggat tatgatggta gtcaggatga 14160

gctgaagtat gaatgggtgg aatttgagct gcccgaaggc aacttctcgg tgaccatgac 14220

catcgacctg atgaacaacg ccatcatcga caattacttg gcggtggggc ggcagaacgg 14280

ggtgctggag agcgacatcg gcgtgaagtt cgacactagg aacttcaggc tgggctggga 14340

ccccgtgacc gagctggtca tgcccggggt gtacaccaac gaggctttcc atcccgatat 14400

tgtcttgctg cccggctgcg gggtggactt caccgagagc cgcctcagca acctgctggg 14460

cattcgcaag aggcagccct tccaggaagg cttccagatc atgtacgagg atctggaggg 14520

gggcaacatc cccgcgctcc tggatgtcga cgcctatgag aaaagcaagg aggatgcagc 14580

agctgaagca actgcagccg tagctaccgc ctctaccgag gtcaggggcg ataattttgc 14640

aagcgccgca gcagtggcag cggccgaggc ggctgaaacc gaaagtaaga tagtcattca 14700

gccggtggag aaggatagca agaacaggag ctacaacgta ctaccggaca agataaacac 14760

cgcctaccgc agctggtacc tagcctacaa ctatggcgac cccgagaagg gcgtgcgctc 14820

ctggacgctg ctcaccacct cggacgtcac ctgcggcgtg gagcaagtct actggtcgct 14880

gcccgacatg atgcaagacc cggtcacctt ccgctccacg cgtcaagtta gcaactaccc 14940

ggtggtgggc gccgagctcc tgcccgtcta ctccaagagc ttcttcaacg agcaggccgt 15000

ctactcgcag cagctgcgcg ccttcacctc gcttacgcac gtcttcaacc gcttccccga 15060

gaaccagatc ctcgtccgcc cgcccgcgcc caccattacc accgtcagtg aaaacgttcc 15120

tgctctcaca gatcacggga ccctgccgct gcgcagcagt atccggggag tccagcgcgt 15180

gaccgttact gacgccagac gccgcacctg cccctacgtc tacaaggccc tgggcatagt 15240

cgcgccgcgc gtcctctcga gccgcacctt ctaaatgtcc attctcatct cgcccagtaa 15300

taacaccggt tggggcctgc gcgcgcccag caagatgtac ggaggcgctc gccaacgctc 15360

cacgcaacac cccgtgcgcg tgcgcgggca cttccgcgct ccctggggcg ccctcaaggg 15420

ccgcgtgcgg tcgcgcacca ccgtcgacga cgtgatcgac caggtggtgg ccgacgcgcg 15480

caactacacc cccgccgccg cgcccgtctc caccgtggac gccgtcatcg acagcgtggt 15540

ggccgacgcg cgccggtacg cccgcgccaa gagccggcgg cggcgcatcg cccggcggca 15600

ccggagcacc cccgccatgc gcgcggcgcg agccttgctg cgcagggcca ggcgcacggg 15660

acgcagggcc atgctcaggg cggccagacg cgcggcttca ggcgccagcg ccggcaggac 15720

ccggagacgc gcggccacgg cggcggcagc ggccatcgcc agcatgtccc gcccgcggcg 15780

agggaacgtg tactgggtgc gcgacgccgc caccggtgtg cgcgtgcccg tgcgcacccg 15840

ccccccctcgc acttgaagat gttcacttcg cgatgttgat gtgtcccagc ggcgaggagg 15900

atgtccaagc gcaaattcaa ggaagagatg ctccaggtca tcgcgcctga gatctacggc 15960

cctgcggtgg tgaaggagga aagaaagccc cgcaaaatca agcgggtcaa aaaggacaaa 16020

aaggaagaag aaagtgatgt ggacggattg gtggagtttg tgcgcgagtt cgccccccgg 16080

cggcgcgtgc agtggcgcgg gcggaaggtg caaccggtgc tgagacccgg caccaccgtg 16140

gtcttcacgc ccggcgagcg ctccggcacc gcttccaagc gctcctacga cgaggtgtac 16200

ggggatgatg atattctgga gcaggcggcc gagcgcctgg gcgagtttgc ttacggcaag 16260

cgcagccgtt ccgcaccgaa ggaagaggcg gtgtccatcc cgctggacca cggcaacccc 16320

acgccgagcc tcaagcccgt gaccttgcag caggtgctgc cgaccgcggc gccgcgccgg 16380

gggttcaagc gcgagggcga ggatctgtac cccaccatgc agctgatggt gcccaagcgc 16440

cagaagctgg aagacgtgct ggagaccatg aaggtggacc cggacgtgca gcccgaggtc 16500

aaggtgcggc ccatcaagca ggtggccccg ggcctgggcg tgcagaccgt ggacatcaag 16560

attcccacgg agcccatgga aacgcagacc gagcccatga tcaagcccag caccagcacc 16620

atggaggtgc agacggatcc ctggatgcca tcggctccta gtcgaagacc ccggcgcaag 16680

tacggcgcgg ccagcctgct gatgcccaac tacgcgctgc atccttccat catccccacg 16740

ccgggctacc gcggcacgcg cttctaccgc ggtcatacca gcagccgccg ccgcaagacc 16800

accactcgcc gccgccgtcg ccgcaccgcc gctgcaacca cccctgccgc cctggtgcgg 16860

agagtgtacc gccgcggccg cgcacctctg accctgccgc gcgcgcgcta ccacccgagc 16920

atcgccattt aaactttcgc ctgctttgca gatcaatggc cctcacatgc cgccttcgcg 16980

ttcccattac gggctaccga ggaagaaaac cgcgccgtag aaggctggcg gggaacggga 17040

tgcgtcgcca ccaccaccgg cggcggcgcg ccatcagcaa gcggttgggg ggaggcttcc 17100

tgcccgcgct gatccccatc atcgccgcgg cgatcggggc gatccccggc attgcttccg 17160

tggcggtgca ggcctctcag cgccactgag acacacttgg aaacatcttg taataaacca 17220

atggactctg acgctcctgg tcctgtgatg tgttttcgta gacagatgga agacatcaat 17280

ttttcgtccc tggctccgcg acacggcacg cggccgttca tgggcacctg gagcgacatc 17340

ggcaccagcc aactgaacgg gggcgccttc aattggagca gtctctggag cgggcttaag 17400

aatttcgggt ccacgcttaa aacctatggc agcaaggcgt ggaacagcac cacagggcag 17460

gcgctgaggg ataagctgaa agagcagaac ttccagcaga aggtggtcga tgggctcgcc 17520

tcgggcatca acggggtggt ggacctggcc aaccaggccg tgcagcggca gatcaacagc 17580

cgcctggacc cggtgccgcc cgccggctcc gtggagatgc cgcaggtgga ggaggagctg 17640

cctcccctgg acaagcgggg cgagaagcga ccccgccccg atgcggagga gacgctgctg 17700

acgcacacgg acgagccgcc cccgtacgag gaggcggtga aactgggtct gcccaccacg 17760

cggcccatcg cgcccctggc caccggggtg ctgaaacccg aaaagcccgc gaccctggac 17820

ttgcctcctc cccagccttc ccgcccctct acagtggcta agcccctgcc gccggtggcc 17880

gtggcccgcg cgcgacccgg gggcaccgcc cgccctcatg cgaactggca gagcactctg 17940

aacagcatcg tgggtctggg agtgcagagt gtgaagcgcc gccgctgcta ttaaacctac 18000

cgtagcgctt aacttgcttg tctgtgtgtg tatgtattat gtcgccgccg ccgctgtcca 18060

ccagaaggag gagtgaagag gcgcgtcgcc gagttgcaag atggccaccc catcgatgct 18120

gccccagtgg gcgtacatgc acatcgccgg acaggacgct tcggagtacc tgagtccggg 18180

tctggtgcag tttgcccgcg ccacagacac ctacttcagt ctggggaaca agtttaggaa 18240

ccccacggtg gcgcccacgc acgatgtgac caccgaccgc agccagcggc tgacgctgcg 18300

cttcgtgccc gtggaccgcg aggacaacac ctactcgtac aaagtgcgct acacgctggc 18360

cgtgggcgac aaccgcgtgc tggacatggc cagcacctac tttgacatcc gcggcgtgct 18420

ggatcggggc cctagcttca aaccctactc cggcaccgcc tacaacagtc tggcccccaa 18480

gggagcaccc aacacttgtc agtggacata taaagccgat ggtgaaactg ccacagaaaa 18540

aacctataca tatggaaatg cacccgtgca gggcattaac atcacaaaag atggtattca 18600

acttggaact gacaccgatg atcagccaat ctacgcagat aaaacctatc agcctgaacc 18660

tcaagtgggt gatgctgaat ggcatgacat cactggtact gatgaaaagt atggaggcag 18720

agctcttaag cctgatacca aaatgaagcc ttgttatggt tcttttgcca agcctactaa 18780

taaagaagga ggtcaggcaa atgtgaaaac aggaacaggc actactaaag aatatgacat 18840

agacatggct ttctttgaca acagaagtgc ggctgctgct ggcctagctc cagaaattgt 18900

tttgtatact gaaaatgtgg atttggaaac tccagatacc catattgtat acaaagcagg 18960

cacagatgac agcagctctt ctattaattt gggtcagcaa gccatgccca acagacctaa 19020

ctacattggt ttcagagaca actttatcgg gctcatgtac tacaacagca ctggcaatat 19080

gggggtgctg gccggtcagg cttctcagct gaatgctgtg gttgacttgc aagacagaaa 19140

caccgagctg tcctaccagc tcttgcttga ctctctgggt gacagaaccc ggtatttcag 19200

tatgtggaat caggcggtgg acagctatga tcctgatgtg cgcattattg aaaatcatgg 19260

tgtggaggat gaacttccca actattgttt ccctctggat gctgttggca gaacagatac 19320

ttatcaggga attaaggcta atggaactga tcaaaccaca tggaccaaag atgacagtgt 19380

caatgatgct aatgagatag gcaagggtaa tccattcgcc atggaaatca acatccaagc 19440

caacctgtgg aggaacttcc tctacgccaa cgtggccctg tacctgcccg actcttacaa 19500

gtacacgccg gccaatgtta ccctgcccac caacaccaac acctacgatt acatgaacgg 19560

ccgggtggtg gcgccctcgc tggtggactc ctacatcaac atcggggcgc gctggtcgct 19620

ggatcccatg gacaacgtga acccccttcaa ccaccaccgc aatgcggggc tgcgctaccg 19680

ctccatgctc ctgggcaacg ggcgctacgt gcccttccac atccaggtgc cccagaaatt 19740

tttcgccatc aagagcctcc tgctcctgcc cgggtcctac acctacgagt ggaacttccg 19800

caaggacgtc aacatgatcc tgcagagctc cctcggcaac gacctgcgca cggacggggc 19860

ctccatctcc ttcaccagca tcaacctcta cgccaccttc ttccccatgg cgcacaacac 19920

ggcctccacg ctcgaggcca tgctgcgcaa cgacaccaac gaccagtcct tcaacgacta 19980

cctctcggcg gccaacatgc tctaccccat cccggccaac gccaccaacg tgcccatctc 20040

catcccctcg cgcaactggg ccgccttccg cggctggtcc ttcacgcgtc tcaagaccaa 20100

ggagacgccc tcgctgggct ccgggttcga cccctacttc gtctactcgg gctccatccc 20160

ctacctcgac ggcaccttct acctcaacca caccttcaag aaggtctcca tcaccttcga 20220

ctcctccgtc agctggcccg gcaacgaccg gctcctgacg cccaacgagt tcgaaatcaa 20280

gcgcaccgtc gacggcgagg gctacaacgt ggcccagtgc aacatgacca aggactggtt 20340

cctggtccag atgctggccc actacaacat cggctaccag ggcttctacg tgcccgaggg 20400

ctacaaggac cgcatgtact ccttcttccg caacttccag cccatgagcc gccaggtggt 20460

ggacgaggtc aactacaagg actaccaggc cgtcaccctg gcctaccagc acaacaactc 20520

gggcttcgtc ggctacctcg cgcccaccat gcgccagggc cagccctacc ccgccaacta 20580

cccctacccg ctcatcggca agagcgccgt caccagcgtc acccagaaaa agttcctctg 20640

cgacagggtc atgtggcgca tccccttctc cagcaacttc atgtccatgg gcgcgctcac 20700

cgacctcggc cagaacatgc tctatgccaa ctccgcccac gcgctagaca tgaatttcga 20760

agtcgacccc atggatgagt ccacccttct ctatgttgtc ttcgaagtct tcgacgtcgt 20820

ccgagtgcac cagccccacc gcggcgtcat cgaggccgtc tacctgcgca ccccccttctc 20880

ggccggtaac gccaccacct aagctcttgc ttcttgcaag ccatggccgc gggctccggc 20940

gagcaggagc tcagggccat catccgcgac ctgggctgcg ggccctactt cctgggcacc 21000

ttcgataagc gcttcccggg attcatggcc ccgcacaagc tggcctgcgc catcgtcaac 21060

acggccggcc gcgagaccgg gggcgagcac tggctggcct tcgcctggaa cccgcgctcg 21120

aacacctgct acctcttcga ccccttcggg ttctcggacg agcgcctcaa gcagatctac 21180

cagttcgagt acgagggcct gctgcgccgc agcgccctgg ccaccgagga ccgctgcgtc 21240

accctggaaa agtccaccca gaccgtgcag ggtccgcgct cggccgcctg cgggctcttc 21300

tgctgcatgt tcctgcacgc cttcgtgcac tggcccgacc gccccatgga caagaacccc 21360

accatgaact tgctgacggg ggtgcccaac ggcatgctcc agtcgcccca ggtggaaccc 21420

accctgcgcc gcaaccagga ggcgctctac cgcttcctca actcccactc cgcctacttt 21480

cgctcccacc gcgcgcgcat cgagaaggcc accgccttcg accgcatgaa tcaagacatg 21540

taaaccgtgt gtgtatgtta aatgtcttta ataaacagca ctttcatgtt acacatgcat 21600

ctgagatgat ttatttagaa atcgaaaggg ttctgccggg tctcggcatg gcccgcgggc 21660

agggacacgt tgcggaactg gtacttggcc agccacttga actcggggat cagcagtttg 21720

ggcagcgggg tgtcggggaa ggagtcggtc cacagcttcc gcgtcagttg cagggcgccc 21780

agcaggtcgg gcgcggagat cttgaaatcg cagttgggac ccgcgttctg cgcgcgggag 21840

ttgcggtaca cggggttgca gcactggaac accatcaggg ccgggtgctt cacgctcgcc 21900

agcaccgtcg cgtcggtgat gctctccacg tcgaggtcct cggcgttggc catcccgaag 21960

ggggtcatct tgcaggtctg ccttcccatg gtgggcacgc acccgggctt gtggttgcaa 22020

tcgcagtgca gggggatcag catcatctgg gcctggtcgg cgttcatccc cgggtacatg 22080

gccttcatga aagcctccaa ttgcctgaac gcctgctggg ccttggctcc ctcggtgaag 22140

aagaccccgc aggacttgct agagaactgg ttggtggcgc acccggcgtc gtgcacgcag 22200

cagcgcgcgt cgttgttggc cagctgcacc acgctgcgcc cccagcggtt ctgggtgatc 22260

ttggcccggt cggggttctc cttcagcgcg cgctgcccgt tctcgctcgc cacatccatc 22320

tcgatcatgt gctccttctg gatcatggtg gtcccgtgca ggcaccgcag cttgccctcg 22380

gcctcggtgc acccgtgcag ccacagcgcg cacccggtgc actcccagtt cttgtgggcg 22440

atctgggaat gcgcgtgcac gaagccctgc aggaagcggc ccatcatggt ggtcagggtc 22500

ttgttgctag tgaaggtcag cggaatgccg cggtgctcct cgttgatgta caggtggcag 22560

atgcggcggt acacctcgcc ctgctcgggc atcagctgga agttggcttt caggtcggtc 22620

tccacgcggt agcggtccat cagcatagtc atgatttcca tacccttctc ccaggccgag 22680

acgatgggca ggctcatagg gttcttcacc atcatcttag cgctagcagc cgcggccagg 22740

gggtcgctct cgtccagggt ctcaaagctc cgcttgccgt ccttctcggt gatccgcacc 22800

ggggggtagc tgaagcccac ggccgccagc tcctcctcgg cctgtctttc gtcctcgctg 22860

tcctggctga cgtcctgcag gaccacatgc ttggtcttgc ggggtttctt cttgggcggc 22920

agcggcggcg gagatgttgg agatggcgag ggggagcgcg agttctcgct caccactact 22980

atctcttcct cttcttggtc cgaggccacg cggcggtagg tatgtctctt cgggggcaga 23040

ggcggaggcg acgggctctc gccgccgcga cttggcggat ggctggcaga gcccccttccg 23100

cgttcggggg tgcgctcccg gcggcgctct gactgacttc ctccgcggcc ggccattgtg 23160

ttctcctagg gaggaacaac aagcatggag actcagccat cgccaacctc gccatctgcc 23220

cccaccgccg acgagaagca gcagcagcag aatgaaagct taaccgcccc gccgcccagc 23280

cccgccacct ccgacgcggc cgtcccagac atgcaagaga tggaggaatc catcgagatt 23340

gacctgggct atgtgacgcc cgcggagcac gaggaggagc tggcagtgcg cttttcacaa 23400

gaagagatac accaagaaca gccagagcag gaagcagaga atgagcagag tcaggctggg 23460

ctcgagcatg acggcgacta cctccacctg agcgggggggg aggacgcgct catcaagcat 23520

ctggcccggc aggccaccat cgtcaaggat gcgctgctcg accgcaccga ggtgcccctc 23580

agcgtggagg agctcagccg cgcctacgag ttgaacctct tctcgccgcg cgtgcccccc 23640

aagcgccagc ccaatggcac ctgcgagccc aacccgcgcc tcaacttcta cccggtcttc 23700

gcggtgcccg aggccctggc cacctaccac atctttttca agaaccaaaa gatccccgtc 23760

tcctgccgcg ccaaccgcac ccgcgccgac gccctttttca acctgggtcc cggcgcccgc 23820

ctacctgata tcgcctcctt ggaagaggtt cccaagatct tcgagggtct gggcagcgac 23880

gagactcggg ccgcgaacgc tctgcaagga gaaggaggag agcatgagca ccacagcgcc 23940

ctggtcgagt tggaaggcga caacgcgcgg ctggcggtgc tcaaacgcac ggtcgagctg 24000

acccatttcg cctacccggc tctgaacctg ccccccaaag tcatgagcgc ggtcatggac 24060

caggtgctca tcaagcgcgc gtcgcccatc tccgaggacg agggcatgca agactccgag 24120

gagggcaagc ccgtggtcag cgacgagcag ctggcccggt ggctgggtcc taatgctagt 24180

ccccagagtt tggaagagcg gcgcaaactc atgatggccg tggtcctggt gaccgtggag 24240

ctggagtgcc tgcgccgctt cttcgccgac gcggagaccc tgcgcaaggt cgaggagaac 24300

ctgcactacc tcttcaggca cgggttcgtg cgccaggcct gcaagatctc caacgtggag 24360

ctgaccaacc tggtctccta catgggcatc ttgcacgaga accgcctggg gcagaacgtg 24420

ctgcacacca ccctgcgcgg ggaggcccgg cgcgactaca tccgcgactg cgtctacctc 24480

tacctctgcc acacctggca gacgggcatg ggcgtgtggc agcagtgtct ggaggagcag 24540

aacctgaaag agctctgcaa gctcctgcag aagaacctca agggtctgtg gaccgggttc 24600

gacgagcgca ccaccgcctc ggacctggcc gacctcattt tccccgagcg cctcaggctg 24660

acgctgcgca acggcctgcc cgactttatg agccaaagca tgttgcaaaa ctttcgctct 24720

ttcatcctcg aacgctccgg aatcctgccc gccacctgct ccgcgctgcc ctcggacttc 24780

gtgccgctga ccttccgcga gtgccccccg ccgctgtgga gccactgcta cctgctgcgc 24840

ctggccaact acctggccta ccactcggac gtgatcgagg acgtcagcgg cgagggcctg 24900

ctcgagtgcc actgccgctg caacctctgc acgccgcacc gctccctggc ctgcaacccc 24960

cagctgctga gcgagaccca gatcatcggc accttcgagt tgcaagggcc cagcgaaggc 25020

gagggttcag ccgccaaggg gggtctgaaa ctcaccccgg ggctgtggac ctcggcctac 25080

ttgcgcaagt tcgtgcccga ggactaccat cccttcgaga tcaggttcta cgaggaccaa 25140

tcccatccgc ccaaggccga gctgtcggcc tgcgtcatca cccaggggggc gatcctggcc 25200

caattgcaag ccatccagaa atcccgccaa gaattcttgc tgaaaaaggg ccgcggggtc 25260

tacctcgacc cccagaccgg tgaggagctc aaccccggct tcccccagga tgccccgagg 25320

aaacaagaag ctgaaagtgg agctgccgcc cgtggaggat ttggaggaag actgggagaa 25380

cagcagtcag gcagaggagg aggagatgga ggaagactgg gacagcactc aggcagagga 25440

ggacagcctg caagacagtc tggaggaaga cgaggaggag gcagaggagg aggtggaaga 25500

agcagccgcc gccagaccgt cgtcctcggc gggggagaaa gcaagcagca cggataccat 25560

ctccgctccg ggtcggggtc ccgctcgacc acacagtaga tgggacgaga ccggacgatt 25620

cccgaacccc accacccaga ccggtaagaa ggagcggcag ggatacaagt cctggcgggg 25680

gcacaaaaac gccatcgtct cctgcttgca ggcctgcggg ggcaacatct ccttcacccg 25740

gcgctacctg ctcttccacc gcggggtgaa ctttccccgc aacatcttgc attactaccg 25800

tcacctccac agcccctact acttccaaga agaggcagca gcagcagaaa aagaccagca 25860

gaaaaccagc agctagaaaa tccacagcgg cggcagcagg tggactgagg atcgcggcga 25920

acgagccggc gcaaacccgg gagctgagga accggatctt tcccaccctc tatgccatct 25980

tccagcagag tcgggggcag gagcaggaac tgaaagtcaa gaaccgttct ctgcgctcgc 26040

tcacccgcag ttgtctgtat cacaagagcg aagaccaact tcagcgcact ctcgaggacg 26100

ccgaggctct cttcaacaag tactgcgcgc tcactcttaa agagtagccc gcgcccgccc 26160

agtcgcagaa aaaggcggga attacgtcac ctgtgccctt cgccctagcc gcctccaccc 26220

atcatcatga gcaaagagat tcccacgcct tacatgtgga gctaccagcc ccagatgggc 26280

ctggccgccg gtgccgccca ggactactcc acccgcatga attggctcag cgccgggccc 26340

gcgatgatct cacgggtgaa tgacatccgc gcccaccgaa accagatact cctagaacag 26400

tcagcgctca ccgccacgcc ccgcaatcac ctcaatccgc gtaattggcc cgccgccctg 26460

gtgtaccagg aaattcccca gcccacgacc gtactacttc cgcgagacgc ccaggccgaa 26520

gtccagctga ctaactcagg tgtccagctg gcgggcggcg ccaccctgtg tcgtcaccgc 26580

cccgctcagg gtataaagcg gctggtgatc cggggcagag gcacacagct caacgacgag 26640

gtggtgagct cttcgctggg tctgcgacct gacggagtct tccaactcgc cggatcgggg 26700

agatcttcct tcacgcctcg tcaggccgtc ctgactttgg agagttcgtc ctcgcagccc 26760

cgctcgggtg gcatcggcac tctccagttc gtggaggagt tcactccctc ggtctacttc 26820

aaccccttct ccggctcccc cggccactac ccggacgagt tcatcccgaa cttcgacgcc 26880

atcagcgagt cggtggacgg ctacgattga aactaatcac ccccttatcc agtgaaataa 26940

agatcatatt gatgatgatt ttacagaaat aaaaaaataat catttgattt gaaataaaga 27000

tacaatcata ttgatgattt gagtttaaca aaaaaataaa gaatcactta cttgaaatct 27060

gataccaggt ctctgtccat gttttctgcc aacaccactt cactcccctc ttcccagctc 27120

tggtactgca ggccccggcg ggctgcaaac ttcctccaca cgctgaaggg gatgtcaaat 27180

tcctcctgtc cctcaatctt cattttatct tctatcagat gtccaaaaag cgcgtccggg 27240

tggatgatga cttcgacccc gtctaccccct acgatgcaga caacgcaccg accgtgccct 27300

tcatcaaccc ccccttcgtc tcttcagatg gattccaaga gaagcccctg ggggtgttgt 27360

ccctgcgact ggccgacccc gtcaccacca agaacgggga aatcaccctc aagctgggag 27420

agggggtgga cctcgattcc tcgggaaaac tcatctccaa cacggccacc aaggccgccg 27480

cccctctcag tttttccaac aacaccattt cccttaacat ggatcacccc ttttacacta 27540

aagatggaaa attatcctta caagtttctc caccattaaa tatactgaga acaagcattc 27600

taaacacact agctttaggt tttggatcag gtttaggact ccgtggctct gccttggcag 27660

tacagttagt ctctccactt acatttgata ctgatggaaa cataaagctt accttagaca 27720

gaggtttgca tgttacaaca ggagatgcaa ttgaaagcaa cataagctgg gctaaaggtt 27780

taaaatttga agatggagcc atagcaacca acattggaaa tgggttagag tttggaagca 27840

gtagtacaga aacaggtgtt gatgatgctt acccaatcca agttaaactt ggatctggcc 27900

ttagctttga cagtacagga gccataatgg ctggtaacaa agaagacgat aaactcactt 27960

tgtggacaac acctgatcca tcaccaaact gtcaaatact cgcagaaaat gatgcaaaac 28020

taacactttg cttgactaaa tgtggtagtc aaatactggc cactgtgtca gtcttagttg 28080

taggaagtgg aaacctaaac cccattactg gcaccgtaag cagtgctcag gtgtttctac 28140

gttttgatgc aaacggtgtt cttttaacag aacattctac actaaaaaaa tactgggggt 28200

ataggcaggg agatagcata gatggcactc catataccaa tgctgtagga ttcatgccca 28260

atttaaaagc ttatccaaag tcacaaagtt ctactactaa aaataatata gtagggcaag 28320

tatacatgaa tggagatgtt tcaaaaccta tgcttctcac tataaccctc aatggtactg 28380

atgacagcaa cagtacatat tcaatgtcat tttcatacac ctggactaat ggaagctatg 28440

ttggagcaac atttggggct aactcttata ccttctcata catcgcccaa gaatgaacac 28500

tgtatcccac cctgcatgcc aacccttccc accccactct gtggaacaaa ctctgaaaca 28560

caaaataaaa taaagttcaa gtgttttatt gattcaacag ttttacagga ttcgagcagt 28620

tatttttcct ccaccctccc aggacatgga atacaccacc ctctcccccc gcacagcctt 28680

gaacatctga atgccattgg tgatggacat gcttttggtc tccacgttcc acacagtttc 28740

agagcgagcc agtctcgggt cggtcaggga gatgaaaccc tccgggcact cccgcatctg 28800

cacctcacag ctcaacagct gaggattgtc ctcggtggtc gggatcacgg ttatctggaa 28860

gaagcagaag agcggcggtg ggaatcatag tccgcgaacg ggatcggccg gtggtgtcgc 28920

atcaggcccc gcagcagtcg ctgccgccgc cgctccgtca agctgctgct caggggggtcc 28980

gggtccaggg actccctcag catgatgccc acggccctca gcatcagtcg tctggtgcgg 29040

cgggcgcagc agcgcatgcg gatctcgctc aggtcgctgc agtacgtgca acacagaacc 29100

accaggttgt tcaacagtcc atagttcaac acgctccagc cgaaactcat cgcgggaagg 29160

atgctaccca cgtggccgtc gtaccagatc ctcaggtaaa tcaagtggtg ccccctccag 29220

aacacgctgc ccacgtacat gatctccttg ggcatgtggc ggttcaccac ctcccggtac 29280

cacatcaccc tctggttgaa catgcagccc cggatgatcc tgcggaacca cagggccagc 29340

accgccccgc ccgccatgca gcgaagagac cccgggtccc ggcaatggca atggaggacc 29400

caccgctcgt acccgtggat catctgggag ctgaacaagt ctatgttggc acagcacagg 29460

catatgctca tgcatctctt cagcactctc aactcctcgg gggtcaaaac catatcccag 29520

ggcacgggga actcttgcag gacagcgaac cccgcagaac agggcaatcc tcgcacagaa 29580

cttacattgt gcatggacag ggtatcgcaa tcaggcagca ccgggtgatc ctccaccaga 29640

gaagcgcggg tctcggtctc ctcacagcgt ggtaaggggg ccggccgata cgggtgatgg 29700

cgggacgcgg ctgatcgtgt tcgcgaccgt gtcatgatgc agttgctttc ggacattttc 29760

gtacttgctg tagcagaacc tggtccgggc gctgcacacc gatcgccggc ggcggtctcg 29820

gcgcttggaa cgctcggtgt tgaaattgta aaacagccac tctctcagac cgtgcagcag 29880

atctagggcc tcaggagtga tgaagatccc atcatgcctg atggctctga tcacatcgac 29940

caccgtggaa tgggccagac ccagccagat gatgcaattt tgttgggttt cggtgacggc 30000

gagcctcggg aacaacgatg aagtaaatgc aagcggtgcg ttccagcatg gttagttagc 30060

tgatctgtag aaaaaacaaa aatgaacatt aaaccatgct agcctggcga acaggtgggt 30120

aaatcgttct ctccagcacc aggcaggcca cggggtctcc ggcgcgaccc tcgtaaaaat 30180

tgtcgctatg attgaaaacc atcacagaga gacgttcccg gtggccggcg tgaatgattc 30240

gacaagatga atacaccccc ggaacattgg cgtccgcgag tgaaaaaaag cgcccgagga 30300

agcaataagg cactacaatg ctcagtctca agtccagcaa agcgatgcca tgcggatgaa 30360

gcacaaaatt ctcaggtgcg tacaaaatgt aattactccc ctcctgcaca ggcagcaaag 30420

cccccgatcc ctccaggtac acatacaaag cctcagcgtc catagcttac cgagcagcag 30480

cacacaacag gcgcaagagt cagagaaagg ctgagctcta acctgtccac ccgctctctg 30540

ctcaatatat agcccagatc tacactgacg taaaggccaa agtctaaaaa tacccgccaa 30600

ataatcacac acgcccagca cacgcccaga aaccggtgac acactcaaaa aaatacgcgc 30660

acttcctcaa acgcccaaaa ctgccgtcat ttccgggttc ccacgctacg tcatcaaaac 30720

acgactttca aattccgtcg accgttaaaa acgtcacccg ccccgccccc aacggtcgcc 30780

cgtctctcag ccaatcagcg ccccgcatcc ccaaattcaa acacctcatt tgcatattaa 30840

cgcgcacaaa aagtttgagg tatattattg atgatg 30876

<210> 58
<211> 29955
<212> DNA
<213> Artificial Sequence

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

<400> 58
catcatcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatgacattg 600

attattgact agttgttaat agtaatcaat tacggggtca ttagttcata gcccatatat 660

ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc 720

ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca 780

ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta 840

tcatatgcca agtccgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta 900

tgcccagtac atgaccttac gggactttcc tacttggcag tacatctacg tattagtcat 960

cgctattacc atggtgatgc ggttttggca gtacaccaat gggcgtggat agcggtttga 1020

ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca 1080

aaatcaacgg gactttccaa aatgtcgtaa taaccccgcc ccgttgacgc aaatgggcgg 1140

taggcgtgta cggtgggagg tctatataag cagagctcgt ttagtgaacc gtcagatcgc 1200

ctggaacgcc atccacgctg ttttgacctc catagaagac agcgatcgcg ccaccatggt 1260

gagcaagggc gaggagctgt tcaccggggt ggtgcccatc ctggtcgagc tggacggcga 1320

cgtaaacggc cacaagttca gcgtgtccgg cgagggcgag ggcgatgcca cctacggcaa 1380

gctgaccctg aagttcatct gcaccaccgg caagctgccc gtgccctggc ccaccctcgt 1440

gaccaccctg acctacggcg tgcagtgctt cagccgctac cccgaccaca tgaagcagca 1500

cgacttcttc aagtccgcca tgcccgaagg ctacgtccag gagcgcacca tcttcttcaa 1560

ggacgacggc aactacaaga cccgcgccga ggtgaagttc gagggcgaca ccctggtgaa 1620

ccgcatcgag ctgaagggca tcgacttcaa ggaggacggc aacatcctgg ggcacaagct 1680

ggagtacaac tacaacagcc acaacgtcta tatcatggcc gacaagcaga agaacggcat 1740

caaggtgaac ttcaagatcc gccacaacat cgaggacggc agcgtgcagc tcgccgacca 1800

ctaccagcag aacaccccca tcggcgacgg ccccgtgctg ctgcccgaca accactacct 1860

gagcacccag tccgccctga gcaaagaccc caacgagaag cgcgatcaca tggtcctgct 1920

ggagttcgtg accgccgccg ggatcactct cggcatggac gagctttaca agtagtgagt 1980

ttaaactccc atttaaatgt gagggttaat gcttcgagca gacatgataa gatacattga 2040

tgagtttgga caaaccacaa ctagaatgca gtgaaaaaaa tgctttattt gtgaaatttg 2100

tgatgctatt gctttatttg taaccattat aagctgcaat aaacaagtta acaacaacaa 2160

ttgcattcat tttatgtttc aggttcaggg ggagatgtgg gaggtttttt aaagcaagta 2220

aaacctctac aaatgtggta aaataactat aacggtccta aggtagcgag tgagtagtgt 2280

tctggggcgg gggaggacct gcatgagggc cagaataact gaaatctgtg cttttctgtg 2340

tgttgcagca gcatgagcgg aagcggctcc tttgagggag gggtattcag cccttatctg 2400

acggggcgtc tcccctcctg ggcgggagtg cgtcagaatg tgatgggatc cacggtggac 2460

ggccggcccg tgcagcccgc gaactcttca accctgacct atgcaaccct gagctcttcg 2520

tcgttggacg cagctgccgc cgcagctgct gcatctgccg ccagcgccgt gcgcggaatg 2580

gccatgggcg ccggctacta cggcactctg gtggccaact cgagttccac caataatccc 2640

gccagcctga acgaggagaa gctgttgctg ctgatggccc agctcgaggc cttgacccag 2700

cgcctgggcg agctgaccca gcaggtggct cagctgcagg agcagacgcg ggccgcggtt 2760

gccacggtga aatccaaata aaaaatgaat caataaataa acggagacgg ttgttgattt 2820

taacacagag tctgaatctt tatttgattt ttcgcgcgcg gtaggccctg gaccaccggt 2880

ctcgatcatt gagcacccgg tggatctttt ccaggacccg gtagaggtgg gcttggatgt 2940

tgaggtacat gggcatgagc ccgtcccggg ggtggaggta gctccattgc agggcctcgt 3000

gctcgggggt ggtgttgtaa atcacccagt catagcaggg gcgcagggca tggtgttgca 3060

caatatcttt gaggaggaga ctgatggcca cgggcagccc tttggtgtag gtgtttacaa 3120

atctgttgag ctgggaggga tgcatgcggg gggagatgag gtgcatcttg gcctggatct 3180

tgagattggc gatgttaccg cccagatccc gcctggggtt catgttgtgc aggaccacca 3240

gcacggtgta tccggtgcac ttggggaatt tatcatgcaa cttggaaggg aaggcgtgaa 3300

agaatttggc gacgcctttg tgcccgccca ggttttccat gcactcatcc atgatgatgg 3360

cgatgggccc gtgggcggcg gcctgggcaa agacgtttcg ggggtcggac acatcatagt 3420

tgtggtcctg ggtgaggtca tcataggcca ttttaatgaa tttggggcgg agggtgccgg 3480

actgggggac aaaggttccc tcgatcccgg gggcgtagtt cccctcacag atctgcatct 3540

cccaggcttt gagctcggag gggggggatca tgtccacctg cggggcgata aagaacacgg 3600

tttccggggc gggggagatg agctgggccg aaagcaagtt ccggagcagc tgggacttgc 3660

cgcagccggt ggggccgtag atgaccccga tgaccggctg caggtggtag ttgagggaga 3720

gacagctgcc gtcctcccgg aggaggggag ccacctcgtt catcatctcg cgcacgtgca 3780

tgttctcgcg caccagttcc gccaggaggc gctctccccc cagggatagg agctcctgga 3840

gcgaggcgaa gtttttcagc ggcttgagtc cgtcggccat gggcattttg gagagggttt 3900

gttgcaagag ttccaggcgg tcccagagct cggtgatgtg ctctacggca tctcgatcca 3960

gcagacctcc tcgtttcgcg ggttgggacg gctgcgggag tagggcacca gacgatgggc 4020

gtccagcgca gccagggtcc ggtccttcca gggtcgcagc gtccgcgtca gggtggtctc 4080

cgtcacggtg aaggggtgcg cgccgggctg ggcgcttgcg agggtgcgct tcaggctcat 4140

ccggctggtc gaaaaccgct cccgatcggc gccctgcgcg tcggccaggt agcaattgac 4200

catgagttcg tagttgagcg cctcggccgc gtggcctttg gcgcggagct tacctttgga 4260

agtctgcccg caggcgggac agaggaggga cttgagggcg tagagcttgg gggcgaggaa 4320

gacggactcg ggggcgtagg cgtccgcgcc gcagtgggcg cagacggtct cgcactccac 4380

gagccaggtg aggtcgggct ggtcggggtc aaaaaccagt ttcccgccgt tctttttgat 4440

gcgtttctta cctttggtct ccatgagctc gtgtccccgc tgggtgacaa agaggctgtc 4500

cgtgtccccg tagaccgact ttatgggccg gtcctcgagc ggtgtgccgc ggtcctcctc 4560

gtagaggaac cccgcccact ccgagacgaa agcccgggtc caggccagca cgaaggaggc 4620

cacgtgggac gggtagcggt cgttgtccac cagcgggtcc acctttcca gggtatgcaa 4680

acacatgtcc ccctcgtcca catccaggaa ggtgattggc ttgtaagtgt aggccacgtg 4740

accgggggtc ccggccgggg gggtataaaa gggtgcgggt ccctgctcgt cctcactgtc 4800

ttccggatcg ctgtccagga gcgccagctg ttggggtagg tattccctct cgaaggcggg 4860

catgacctcg gcactcaggt tgtcagtttc tagaaacgag gaggatttga tattgacggt 4920

gccggcggag atgcctttca agagcccctc gtccatctgg tcagaaaaga cgatcttttt 4980

gttgtcgagc ttggtggcga aggagccgta gagggcgttg gagaggagct tggcgatgga 5040

gcgcatggtc tggttttttt ccttgtcggc gcgctccttg gcggcgatgt tgagctgcac 5100

gtactcgcgc gccacgcact tccattcggg gaagacggtg gtcagctcgt cgggcacgat 5160

tctgacctgc cagccccgat tatgcagggt gatgaggtcc acactggtgg ccacctcgcc 5220

gcgcaggggc tcattagtcc agcagaggcg tccgcccttg cgcgagcaga agggggggcag 5280

ggggtccagc atgacctcgt cgggggggtc ggcatcgatg gtgaagatgc cgggcaggag 5340

gtcggggtca aagtagctga tggaagtggc cagatcgtcc agggcagctt gccattcgcg 5400

cacggccagc gcgcgctcgt agggactgag gggcgtgccc cagggcatgg gatgggtaag 5460

cgcggaggcg tacatgccgc agatgtcgta gacgtagagg ggctcctcga ggatgccgat 5520

gtaggtgggg tagcagcgcc ccccgcggat gctggcgcgc acgtagtcat acagctcgtg 5580

cgaggggcg aggagccccg ggcccaggtt ggtgcgactg ggcttttcgg cgcggtagac 5640

gatctggcgg aaaatggcat gcgagttgga ggagatggtg ggcctttgga agatgttgaa 5700

gtgggcgtgg ggcagtccga ccgagtcgcg gatgaagtgg gcgtaggagt cttgcagctt 5760

ggcgacgagc tcggcggtga ctaggacgtc cagagcgcag tagtcgaggg tctcctggat 5820

gatgtcatac ttgagctgtc ccttttgttt ccacagctcg cggttgagaa ggaactcttc 5880

gcggtccttc cagtactctt cgaggggaa cccgtcctga tctgcacggt aagagcctag 5940

catgtagaac tggttgacgg ccttgtaggc gcagcagccc ttctccacgg ggagggcgta 6000

ggcctgggcg gccttgcgca gggaggtgtg cgtgagggcg aaagtgtccc tgaccatgac 6060

cttgaggaac tggtgcttga agtcgatatc gtcgcagccc ccctgctccc agagctggaa 6120

gtccgtgcgc ttcttgtagg cggggttggg caaagcgaaa gtaacatcgt tgaagaggat 6180

cttgcccgcg cggggcataa agttgcgagt gatgcggaaa ggttggggca cctcggcccg 6240

gttgttgatg acctgggcgg cgagcacgat ctcgtcgaag ccgttgatgt tgtggcccac 6300

gatgtagagt tccacgaatc gcggacggcc cttgacgtgg ggcagtttct tgagctcctc 6360

gtaggtgagc tcgtcggggt cgctgagccc gtgctgctcg agcgcccagt cggcgagatg 6420

ggggttggcg cggaggaagg aagtccagag atccacggcc agggcggttt gcagacggtc 6480

ccggtactga cggaactgct gcccgacggc catttttttcg ggggtgacgc agtagaaggt 6540

gcgggggtcc ccgtgccagc gatcccattt gagctggagg gcgagatcga gggcgagctc 6600

gacgagccgg tcgtccccgg agagtttcat gaccagcatg aaggggacga gctgcttgcc 6660

gaaggacccc atccaggtgt aggtttccac atcgtaggtg aggaagagcc tttcggtgcg 6720

aggatgcgag ccgatgggga agaactggat ctcctgccac caattggagg aatggctgtt 6780

gatgtgatgg aagtagaaat gccgacggcg cgccgaacac tcgtgcttgt gtttatacaa 6840

gcggccacag tgctcgcaac gctgcacggg atgcacgtgc tgcacgagct gtacctgagt 6900

tcctttgacg aggaatttca gtgggaagtg gagtcgtggc gcctgcatct cgtgctgtac 6960

tacgtcgtgg tggtcggcct ggccctcttc tgcctcgatg gtggtcatgc tgacgagccc 7020

gcgcgggagg caggtccaga cctcggcgcg agcgggtcgg agagcgagga cgagggcgcg 7080

caggccggag ctgtccaggg tcctgagacg ctgcggagtc aggtcagtgg gcagcggcgg 7140

cgcgcggttg acttgcagga gtttttccag ggcgcgcggg aggtccagat ggtacttgat 7200

ctccaccgcg ccattggtgg cgacgtcgat ggcttgcagg gtcccgtgcc cctggggtgt 7260

gaccaccgtc ccccgtttct tcttgggcgg ctggggcgac gggggcggtg cctcttccat 7320

ggttagaagc ggcggcgagg acgcgcgccg ggcggcaggg gcggctcggg gcccggaggc 7380

aggggcggca ggggcacgtc ggcgccgcgc gcgggtaggt tctggtactg cgcccggaga 7440

agactggcgt gagcgacgac gcgacggttg acgtcctgga tctgacgcct ctgggtgaag 7500

gccacgggac ccgtgagttt gaacctgaaa gagagttcga cagaatcaat ctcggtatcg 7560

ttgacggcgg cctgccgcag gatctcttgc acgtcgcccg agttgtcctg gtaggcgatc 7620

tcggtcatga actgctcgat ctcctcctct tgaaggtctc cgcggccggc gcgctccacg 7680

gtggccgcga ggtcgttgga gatgcggccc atgagctgcg agaaggcgtt catgcccgcc 7740

tcgttccaga cgcggctgta gaccacgacg ccctcgggat cgcgggcgcg catgaccacc 7800

tgggcgaggt tgagctccac gtggcgcgtg aagaccgcgt agttgcagag gcgctggtag 7860

aggtagttga gcgtggtggc gatgtgctcg gtgacgaaga aatacatgat ccagcggcgg 7920

agcggcatct cgctgacgtc gcccagcgcc tccaaacgtt ccatggcctc gtaaaagtcc 7980

acggcgaagt tgaaaaactg ggagttgcgc gccgagacgg tcaactcctc ctccagaaga 8040

cggatgagct cggcgatggt ggcgcgcacc tcgcgctcga aggcccccgg gagttcctcc 8100

acttcctctt cttcctcctc cactaacatc tcttctactt cctcctcagg cggcagtggt 8160

ggcgggggag ggggcctgcg tcgccggcgg cgcacgggca gacggtcgat gaagcgctcg 8220

atggtctcgc cgcgccggcg tcgcatggtc tcggtgacgg cgcgcccgtc ctcgcggggc 8280

cgcagcgtga agacgccgcc gcgcatctcc aggtggccgg gggggtcccc gttgggcagg 8340

gagagggcgc tgacgatgca tcttatcaat tgccccgtag ggactccgcg caaggacctg 8400

agcgtctcga gatccacggg atctgaaaac cgctgaacga aggcttcgag ccagtcgcag 8460

tcgcaaggta ggctgagcac ggtttcttct ggcgggtcat gttggttggg agcggggcgg 8520

gcgatgctgc tggtgatgaa gttgaaatag gcggttctga gacggcggat ggtggcgagg 8580

agcaccaggt ctttgggccc ggcttgctgg atgcgcagac ggtcggccat gccccaggcg 8640

tggtcctgac acctggccag gtccttgtag tagtcctgca tgagccgctc cacgggcacc 8700

tcctcctcgc ccgcgcggcc gtgcatgcgc gtgagcccga agccgcgctg gggctggacg 8760

agcgccaggt cggcgacgac gcgctcggcg aggatggctt gctggatctg ggtgagggtg 8820

gtctggaagt catcaaagtc gacgaagcgg tggtaggctc cggtgttgat ggtgtaggag 8880

cagttggcca tgacggacca gttgacggtc tggtggcccg gacgcacgag ctcgtggtac 8940

ttgaggcgcg agtaggcgcg cgtgtcgaag atgtagtcgt tgcaggtgcg caccaggtac 9000

tggtagccga tgaggaagtg cggcggcggc tggcggtaga gcggccatcg ctcggtggcg 9060

ggggcgccgg gcgcgaggtc ctcgagcatg gtgcggtggt agccgtagat gtacctggac 9120

atccaggtga tgccggcggc ggtggtggag gcgcgcggga actcgcggac gcggttccag 9180

atgttgcgca gcggcaggaa gtagttcatg gtgggcacgg tctggcccgt gaggcgcgcg 9240

cagtcgtgga tgctctatac gggcaaaaac gaaagcggtc agcggctcga ctccgtggcc 9300

tggaggctaa gcgaacgggt tgggctgcgc gtgtaccccg gttcgaatct cgaatcaggc 9360

tggagccgca gctaacgtgg tattggcact cccgtctcga cccaagcctg caccaaccct 9420

ccaggatacg gaggcgggtc gttttgcaac tttttttttgg aggccggatg agactagtaa 9480

gcgcggaaag cggccgaccg cgatggctcg ctgccgtagt ctggagaaga atcgccaggg 9540

ttgcgttgcg gtgtgccccg gttcgaggcc ggccggattc cgcggctaac gagggcgtgg 9600

ctgccccgtc gtttccaaga ccccatagcc agccgacttc tccagttacg gagcgagccc 9660

ctcttttgtt ttgtttgttt ttgccagatg catcccgtac tgcggcagat gcgcccccac 9720

caccctccac cgcaacaaca gccccctcca cagccggcgc ttctgccccc gccccagcag 9780

caacttccag ccacgaccgc cgcggccgcc gtgagcgggg ctggacagag ttatgatcac 9840

cagctggcct tggaagaggg cgaggggctg gcgcgcctgg gggcgtcgtc gccggagcgg 9900

cacccgcgcg tgcagatgaa aagggacgct cgcgaggcct acgtgcccaa gcagaacctg 9960

ttcagagaca ggagcggcga ggagcccgag gagatgcgcg cggcccggtt ccacgcgggg 10020

cgggagctgc ggcgcggcct ggaccgaaag agggtgctga gggacgagga tttcgaggcg 10080

gacgagctga cggggatcag ccccgcgcgc gcgcacgtgg ccgcggccaa cctggtcacg 10140

gcgtacgagc agaccgtgaa ggaggagagc aacttccaaa aatccttcaa caaccacgtg 10200

cgcaccctga tcgcgcgcga ggaggtgacc ctgggcctga tgcacctgtg ggacctgctg 10260

gaggccatcg tgcagaaccc caccagcaag ccgctgacgg cgcagctgtt cctggtggtg 10320

cagcatagtc gggacaacga agcgttcagg gaggcgctgc tgaatatcac cgagcccgag 10380

ggccgctggc tcctggacct ggtgaacatt ctgcagagca tcgtggtgca ggagcgcggg 10440

ctgccgctgt ccgagaagct ggcggccatc aacttctcgg tgctgagttt gggcaagtac 10500

tacgctagga agatctacaa gaccccgtac gtgcccatag acaaggaggt gaagatcgac 10560

gggttttaca tgcgcatgac cctgaaagtg ctgaccctga gcgacgatct gggggtgtac 10620

cgcaacgaca ggatgcaccg tgcggtgagc gccagcaggc ggcgcgagct gagcgaccag 10680

gagctgatgc atagtctgca gcgggccctg accggggccg ggaccgaggg ggagagctac 10740

tttgacatgg gcgcggacct gcactggcag cccagccgcc gggccttgga ggcggcggca 10800

ggaccctacg tagaagaggt ggacgatgag gtggacgagg agggcgagta cctggaagac 10860

tgatggcgcg accgtatttt tgctagatgc aacaacaaca gccacctcct gatcccgcga 10920

tgcgggcggc gctgcagagc cagccgtccg gcattaactc ctcggacgat tggacccagg 10980

ccatgcaacg catcatggcg ctgacgaccc gcaaccccga agcctttaga cagcagcccc 11040

aggccaaccg gctctcggcc atcctggagg ccgtggtgcc ctcgcgctcc aaccccacgc 11100

acgagaaggt cctggccatc gtgaacgcgc tggtggagaa caaggccatc cgcggcgacg 11160

aggccggcct ggtgtacaac gcgctgctgg agcgcgtggc ccgctacaac agcaccaacg 11220

tgcagaccaa cctggaccgc atggtgaccg acgtgcgcga ggccgtggcc cagcgcgagc 11280

ggttccaccg cgagtccaac ctgggatcca tggtggcgct gaacgccttc ctcagcaccc 11340

agcccgccaa cgtgccccgg ggccaggagg actacaccaa cttcatcagc gccctgcgcc 11400

tgatggtgac cgaggtgccc cagagcgagg tgtaccagtc cgggccggac tacttcttcc 11460

agaccagtcg ccagggcttg cagaccgtga acctgagcca ggctttcaag aacttgcagg 11520

gcctgtgggg cgtgcaggcc ccggtcgggg accgcgcgac ggtgtcgagc ctgctgacgc 11580

cgaactcgcg cctgctgctg ctgctggtgg ccccccttcac ggacagcggc agcatcaacc 11640

gcaactcgta cctgggctac ctgattaacc tgtaccgcga ggccatcggc caggcgcacg 11700

tggacgagca gacctaccag gagatcaccc acgtgagccg cgccctgggc caggacgacc 11760

cgggcaacct ggaagccacc ctgaactttt tgctgaccaa ccggtcgcag aagatcccgc 11820

cccagtacgc gctcagcacc gaggaggagc gcatcctgcg ttacgtgcag cagagcgtgg 11880

gcctgttcct gatgcaggag ggggccaccc ccagcgccgc gctcgacatg accgcgcgca 11940

acatggagcc cagcatgtac gccagcaacc gcccgttcat caataaactg atggactact 12000

tgcatcgggc ggccgccatg aactctgact atttcaccaa cgccatcctg aatccccact 12060

ggctcccgcc gccggggttc tacacgggcg agtacgacat gcccgacccc aatgacgggt 12120

tcctgtggga cgatgtggac agcagcgtgt tctccccccg accgggtgct aacgagcgcc 12180

ccttgtggaa gaaggaaggc agcgaccgac gcccgtcctc ggcgctgtcc ggccgcgagg 12240

gtgctgccgc ggcggtgccc gaggccgcca gtcctttccc gagcttgccc ttctcgctga 12300

acagtatccg cagcagcgag ctgggcagga tcacgcgccc gcgcttgctg ggcgaagagg 12360

agtacttgaa tgactcgctg ttgagacccg agcgggagaa gaacttcccc aataacggga 12420

tagaaagcct ggtggacaag atgagccgct ggaagacgta tgcgcaggag cacagggacg 12480

atccccgggc gtcgcagggg gccacgagcc ggggcagcgc cgcccgtaaa cgccggtggc 12540

acgacaggca gcggggacag atgtgggacg atgaggactc cgccgacgac agcagcgtgt 12600

tggacttggg tgggagtggt aacccgttcg ctcacctgcg cccccgtatc gggcgcatga 12660

tgtaagagaa accgaaaata aatgatactc accaaggcca tggcgaccag cgtgcgttcg 12720

tttcttctct gttgttgttg tatctagtat gatgaggcgt gcgtacccgg agggtcctcc 12780

tccctcgtac gagagcgtga tgcagcaggc gatggcggcg gcggcgatgc agcccccgct 12840

ggaggctcct tacgtgcccc cgcggtacct ggcgcctacg gaggggcgga acagcattcg 12900

ttactcggag ctggcaccct tgtacgatac cacccggttg tacctggtgg acaacaagtc 12960

ggcggacatc gcctcgctga actaccagaa cgaccacagc aacttcctga ccaccgtggt 13020

gcagaacaat gacttcaccc ccacggaggc cagcacccag accatcaact ttgacgagcg 13080

ctcgcggtgg ggcggccagc tgaaaaccat catgcacacc aacatgccca acgtgaacga 13140

gttcatgtac agcaacaagt tcaaggcgcg ggtgatggtc tcccgcaaga cccccaatgg 13200

ggtgacagtg acagaggatt atgatggtag tcaggatgag ctgaagtatg aatgggtgga 13260

atttgagctg cccgaaggca acttctcggt gaccatgacc atcgacctga tgaacaacgc 13320

catcatcgac aattacttgg cggtggggcg gcagaacggg gtgctggaga gcgacatcgg 13380

cgtgaagttc gacactagga acttcaggct gggctgggac cccgtgaccg agctggtcat 13440

gcccggggtg tacaccaacg aggctttcca tcccgatatt gtcttgctgc ccggctgcgg 13500

ggtggacttc accgagagcc gcctcagcaa cctgctgggc attcgcaaga ggcagccctt 13560

ccaggaaggc ttccagatca tgtacgagga tctggagggg ggcaacatcc ccgcgctcct 13620

ggatgtcgac gcctatgaga aaagcaagga ggatgcagca gctgaagcaa ctgcagccgt 13680

agctaccgcc tctaccgagg tcaggggcga taattttgca agcgccgcag cagtggcagc 13740

ggccgaggcg gctgaaaccg aaagtaagat agtcattcag ccggtggaga aggatagcaa 13800

gaacaggagc tacaacgtac taccggacaa gataaacacc gcctaccgca gctggtacct 13860

agcctacaac tatggcgacc ccgagaaggg cgtgcgctcc tggacgctgc tcaccacctc 13920

ggacgtcacc tgcggcgtgg agcaagtcta ctggtcgctg cccgacatga tgcaagaccc 13980

ggtcaccttc cgctccacgc gtcaagttag caactacccg gtggtgggcg ccgagctcct 14040

gcccgtctac tccaagagct tcttcaacga gcaggccgtc tactcgcagc agctgcgcgc 14100

cttcacctcg cttacgcacg tcttcaaccg cttccccgag aaccagatcc tcgtccgccc 14160

gcccgcgccc accattacca ccgtcagtga aaacgttcct gctctcacag atcacgggac 14220

cctgccgctg cgcagcagta tccggggagt ccagcgcgtg accgttactg acgccagacg 14280

ccgcacctgc ccctacgtct acaaggccct gggcatagtc gcgccgcgcg tcctctcgag 14340

ccgcaccttc taaatgtcca ttctcatctc gcccagtaat aacaccggtt ggggcctgcg 14400

cgcgcccagc aagatgtacg gaggcgctcg ccaacgctcc acgcaacacc ccgtgcgcgt 14460

gcgcgggcac ttccgcgctc cctggggcgc cctcaagggc cgcgtgcggt cgcgcaccac 14520

cgtcgacgac gtgatcgacc aggtggtggc cgacgcgcgc aactacaccc ccgccgccgc 14580

gcccgtctcc accgtggacg ccgtcatcga cagcgtggtg gccgacgcgc gccggtacgc 14640

ccgcgccaag agccggcggc ggcgcatcgc ccggcggcac cggagcaccc ccgccatgcg 14700

cgcggcgcga gccttgctgc gcagggccag gcgcacggga cgcagggcca tgctcagggc 14760

ggccagacgc gcggcttcag gcgccagcgc cggcaggacc cggagacgcg cggccacggc 14820

ggcggcagcg gccatcgcca gcatgtcccg cccgcggcga gggaacgtgt actgggtgcg 14880

cgacgccgcc accggtgtgc gcgtgcccgt gcgcacccgc ccccctcgca cttgaagatg 14940

ttcacttcgc gatgttgatg tgtcccagcg gcgaggagga tgtccaagcg caaattcaag 15000

gaagagatgc tccaggtcat cgcgcctgag atctacggcc ctgcggtggt gaaggaggaa 15060

agaaagcccc gcaaaatcaa gcgggtcaaa aaggacaaaa aggaagaaga aagtgatgtg 15120

gacggattgg tggagtttgt gcgcgagttc gccccccggc ggcgcgtgca gtggcgcggg 15180

cggaaggtgc aaccggtgct gagacccggc accaccgtgg tcttcacgcc cggcgagcgc 15240

tccggcaccg cttccaagcg ctcctacgac gaggtgtacg gggatgatga tattctggag 15300

caggcggccg agcgcctggg cgagtttgct tacggcaagc gcagccgttc cgcaccgaag 15360

gaagaggcgg tgtccatccc gctggaccac ggcaacccca cgccgagcct caagcccgtg 15420

accttgcagc aggtgctgcc gaccgcggcg ccgcgccggg ggttcaagcg cgagggcgag 15480

gatctgtacc ccaccatgca gctgatggtg cccaagcgcc agaagctgga agacgtgctg 15540

gagaccatga aggtggaccc ggacgtgcag cccgaggtca aggtgcggcc catcaagcag 15600

gtggccccgg gcctgggcgt gcagaccgtg gacatcaaga ttcccacgga gcccatggaa 15660

acgcagaccg agcccatgat caagcccagc accagcacca tggaggtgca gacggatccc 15720

tggatgccat cggctcctag tcgaagaccc cggcgcaagt acggcgcggc cagcctgctg 15780

atgcccaact acgcgctgca tccttccatc atccccacgc cgggctaccg cggcacgcgc 15840

ttctaccgcg gtcataccag cagccgccgc cgcaagacca ccactcgccg ccgccgtcgc 15900

cgcaccgccg ctgcaaccac ccctgccgcc ctggtgcgga gagtgtaccg ccgcggccgc 15960

gcacctctga ccctgccgcg cgcgcgctac cacccgagca tcgccattta aactttcgcc 16020

tgctttgcag atcaatggcc ctcacatgcc gccttcgcgt tcccattacg ggctaccgag 16080

gaagaaaacc gcgccgtaga aggctggcgg ggaacgggat gcgtcgccac caccaccggc 16140

ggcggcgcgc catcagcaag cggttggggg gaggcttcct gcccgcgctg atccccatca 16200

tcgccgcggc gatcggggcg atccccggca ttgcttccgt ggcggtgcag gcctctcagc 16260

gccactgaga cacacttgga aacatcttgt aataaaccaa tggactctga cgctcctggt 16320

cctgtgatgt gttttcgtag acagatggaa gacatcaatt tttcgtccct ggctccgcga 16380

cacggcacgc ggccgttcat gggcacctgg agcgacatcg gcaccagcca actgaacggg 16440

ggcgccttca attggagcag tctctggagc gggcttaaga atttcgggtc cacgcttaaa 16500

acctatggca gcaaggcgtg gaacagcacc acagggcagg cgctgaggga taagctgaaa 16560

gagcagaact tccagcagaa ggtggtcgat gggctcgcct cgggcatcaa cggggtggtg 16620

gacctggcca accaggccgt gcagcggcag atcaacagcc gcctggaccc ggtgccgccc 16680

gccggctccg tggagatgcc gcaggtggag gaggagctgc ctcccctgga caagcggggc 16740

gagaagcgac cccgccccga tgcggaggag acgctgctga cgcacacgga cgagccgccc 16800

ccgtacgagg aggcggtgaa actgggtctg cccaccacgc ggcccatcgc gcccctggcc 16860

accggggtgc tgaaacccga aaagcccgcg accctggact tgcctcctcc ccagccttcc 16920

cgcccctcta cagtggctaa gcccctgccg ccggtggccg tggcccgcgc gcgacccggg 16980

ggcaccgccc gccctcatgc gaactggcag agcactctga acagcatcgt gggtctggga 17040

gtgcagagtg tgaagcgccg ccgctgctat taaacctacc gtagcgctta acttgcttgt 17100

ctgtgtgtgt atgtattatg tcgccgccgc cgctgtccac cagaaggagg agtgaagagg 17160

cgcgtcgccg agttgcaaga tggccacccc atcgatgctg ccccagtggg cgtacatgca 17220

catcgccgga caggacgctt cggagtacct gagtccgggt ctggtgcagt ttgcccgcgc 17280

cacagacacc tacttcagtc tggggaacaa gtttaggaac cccacggtgg cgcccacgca 17340

cgatgtgacc accgaccgca gccagcggct gacgctgcgc ttcgtgcccg tggaccgcga 17400

ggacaacacc tactcgtaca aagtgcgcta cacgctggcc gtgggcgaca accgcgtgct 17460

ggacatggcc agcacctact ttgacatccg cggcgtgctg gatcggggcc ctagcttcaa 17520

accctactcc ggcaccgcct acaacagtct ggcccccaag ggagcaccca acacttgtca 17580

gtggacatat aaagccgatg gtgaaactgc cacagaaaaa acctatacat atggaaatgc 17640

acccgtgcag ggcattaaca tcacaaaaga tggtattcaa cttggaactg acaccgatga 17700

tcagccaatc tacgcagata aaacctatca gcctgaacct caagtgggtg atgctgaatg 17760

gcatgacatc actggtactg atgaaaagta tggaggcaga gctcttaagc ctgataccaa 17820

aatgaagcct tgttatggtt cttttgccaa gcctactaat aaagaaggag gtcaggcaaa 17880

tgtgaaaaca ggaacaggca ctactaaaga atatgacata gacatggctt tctttgacaa 17940

cagaagtgcg gctgctgctg gcctagctcc agaaattgtt ttgtatactg aaaatgtgga 18000

tttggaaact ccagataccc atattgtata caaagcaggc acagatgaca gcagctcttc 18060

tattaatttg ggtcagcaag ccatgcccaa cagacctaac tacattggtt tcagagacaa 18120

ctttatcggg ctcatgtact acaacagcac tggcaatatg ggggtgctgg ccggtcaggc 18180

ttctcagctg aatgctgtgg ttgacttgca agacagaaac accgagctgt cctaccagct 18240

cttgcttgac tctctgggtg acagaacccg gtatttcagt atgtggaatc aggcggtgga 18300

cagctatgat cctgatgtgc gcattattga aaatcatggt gtggaggatg aacttcccaa 18360

ctattgtttc cctctggatg ctgttggcag aacagatact tatcagggaa ttaaggctaa 18420

tggaactgat caaaccacat ggaccaaaga tgacagtgtc aatgatgcta atgagatagg 18480

caagggtaat ccattcgcca tggaaatcaa catccaagcc aacctgtgga ggaacttcct 18540

ctacgccaac gtggccctgt acctgcccga ctcttacaag tacacgccgg ccaatgttac 18600

cctgcccacc aacaccaaca cctacgatta catgaacggc cgggtggtgg cgccctcgct 18660

ggtggactcc tacatcaaca tcggggcgcg ctggtcgctg gatcccatgg acaacgtgaa 18720

ccccttcaac caccaccgca atgcggggct gcgctaccgc tccatgctcc tgggcaacgg 18780

gcgctacgtg cccttccaca tccaggtgcc ccagaaattt ttcgccatca agagcctcct 18840

gctcctgccc gggtcctaca cctacgagtg gaacttccgc aaggacgtca acatgatcct 18900

gcagagctcc ctcggcaacg acctgcgcac ggacggggcc tccatctcct tcaccagcat 18960

caacctctac gccaccttct tccccatggc gcacaacacg gcctccacgc tcgaggccat 19020

gctgcgcaac gacaccaacg accagtcctt caacgactac ctctcggcgg ccaacatgct 19080

ctaccccatc ccggccaacg ccaccaacgt gcccatctcc atcccctcgc gcaactgggc 19140

cgccttccgc ggctggtcct tcacgcgtct caagaccaag gagacgccct cgctgggctc 19200

cgggttcgac ccctacttcg tctactcggg ctccatcccc tacctcgacg gcaccttcta 19260

cctcaaccac accttcaaga aggtctccat caccttcgac tcctccgtca gctggcccgg 19320

caacgaccgg ctcctgacgc ccaacgagtt cgaaatcaag cgcaccgtcg acggcgaggg 19380

ctacaacgtg gcccagtgca acatgaccaa ggactggttc ctggtccaga tgctggccca 19440

ctacaacatc ggctaccagg gcttctacgt gcccgagggc tacaaggacc gcatgtactc 19500

cttcttccgc aacttccagc ccatgagccg ccaggtggtg gacgaggtca actacaagga 19560

ctaccaggcc gtcaccctgg cctaccagca caacaactcg ggcttcgtcg gctacctcgc 19620

gcccaccatg cgccagggcc agccctaccc cgccaactac ccctacccgc tcatcggcaa 19680

gagcgccgtc accagcgtca cccagaaaaa gttcctctgc gacagggtca tgtggcgcat 19740

ccccttctcc agcaacttca tgtccatggg cgcgctcacc gacctcggcc agaacatgct 19800

ctatgccaac tccgcccacg cgctagacat gaatttcgaa gtcgacccca tggatgagtc 19860

cacccttctc tatgttgtct tcgaagtctt cgacgtcgtc cgagtgcacc agccccaccg 19920

cggcgtcatc gaggccgtct acctgcgcac ccccttctcg gccggtaacg ccaccaccta 19980

agctcttgct tcttgcaagc catggccgcg ggctccggcg agcaggagct cagggccatc 20040

atccgcgacc tgggctgcgg gccctacttc ctgggcacct tcgataagcg cttcccggga 20100

ttcatggccc cgcacaagct ggcctgcgcc atcgtcaaca cggccggccg cgagaccggg 20160

ggcgagcact ggctggcctt cgcctggaac ccgcgctcga acacctgcta cctcttcgac 20220

cccttcgggt tctcggacga gcgcctcaag cagatctacc agttcgagta cgagggcctg 20280

ctgcgccgca gcgccctggc caccgaggac cgctgcgtca ccctggaaaa gtccacccag 20340

accgtgcagg gtccgcgctc ggccgcctgc gggctcttct gctgcatgtt cctgcacgcc 20400

ttcgtgcact ggcccgaccg ccccatggac aagaacccca ccatgaactt gctgacgggg 20460

gtgcccaacg gcatgctcca gtcgccccag gtggaaccca ccctgcgccg caaccaggag 20520

gcgctctacc gcttcctcaa ctcccactcc gcctactttc gctcccaccg cgcgcgcatc 20580

gagaaggcca ccgccttcga ccgcatgaat caagacatgt aaaccgtgtg tgtatgttaa 20640

atgtctttaa taaacagcac tttcatgtta cacatgcatc tgagatgatt tatttagaaa 20700

tcgaaagggt tctgccgggt ctcggcatgg cccgcgggca gggacacgtt gcggaactgg 20760

tacttggcca gccacttgaa ctcggggatc agcagtttgg gcagcggggt gtcggggaag 20820

gagtcggtcc acagcttccg cgtcagttgc agggcgccca gcaggtcggg cgcggagatc 20880

ttgaaatcgc agttgggacc cgcgttctgc gcgcgggagt tgcggtacac ggggttgcag 20940

cactggaaca ccatcagggc cgggtgcttc acgctcgcca gcaccgtcgc gtcggtgatg 21000

ctctccacgt cgaggtcctc ggcgttggcc atcccgaagg gggtcatctt gcaggtctgc 21060

cttcccatgg tgggcacgca cccgggcttg tggttgcaat cgcagtgcag ggggatcagc 21120

atcatctggg cctggtcggc gttcatcccc gggtacatgg ccttcatgaa agcctccaat 21180

tgcctgaacg cctgctgggc cttggctccc tcggtgaaga agaccccgca ggacttgcta 21240

gagaactggt tggtggcgca cccggcgtcg tgcacgcagc agcgcgcgtc gttgttggcc 21300

agctgcacca cgctgcgccc ccagcggttc tgggtgatct tggcccggtc ggggttctcc 21360

ttcagcgcgc gctgcccgtt ctcgctcgcc acatccatct cgatcatgtg ctccttctgg 21420

atcatggtgg tcccgtgcag gcaccgcagc ttgccctcgg cctcggtgca cccgtgcagc 21480

cacagcgcgc acccggtgca ctcccagttc ttgtgggcga tctgggaatg cgcgtgcacg 21540

aagccctgca ggaagcggcc catcatggtg gtcagggtct tgttgctagt gaaggtcagc 21600

ggaatgccgc ggtgctcctc gttgatgtac aggtggcaga tgcggcggta cacctcgccc 21660

tgctcgggca tcagctggaa gttggctttc aggtcggtct ccacgcggta gcggtccatc 21720

agcatagtca tgatttccat acccttctcc caggccgaga cgatgggcag gctcataggg 21780

ttcttcacca tcatcttagc gctagcagcc gcggccaggg ggtcgctctc gtccagggtc 21840

tcaaagctcc gcttgccgtc cttctcggtg atccgcaccg gggggtagct gaagcccacg 21900

gccgccagct cctcctcggc ctgtctttcg tcctcgctgt cctggctgac gtcctgcagg 21960

accacatgct tggtcttgcg gggtttcttc ttgggcggca gcggcggcgg agatgttgga 22020

gatggcgagg gggagcgcga gttctcgctc accactacta tctcttcctc ttcttggtcc 22080

gaggccacgc ggcggtaggt atgtctcttc gggggcagag gcggaggcga cgggctctcg 22140

ccgccgcgac ttggcggatg gctggcagag ccccttccgc gttcgggggt gcgctcccgg 22200

cggcgctctg actgacttcc tccgcggccg gccattgtgt tctcctaggg aggaacaaca 22260

agcatggaga ctcagccatc gccaacctcg ccatctgccc ccaccgccga cgagaagcag 22320

cagcagcaga atgaaagctt aaccgccccg ccgcccagcc ccgccacctc cgacgcggcc 22380

gtcccagaca tgcaagagat ggaggaatcc atcgagattg acctgggcta tgtgacgccc 22440

gcggagcacg aggaggagct ggcagtgcgc ttttcacaag aagagataca ccaagaacag 22500

ccagagcagg aagcagagaa tgagcagagt caggctgggc tcgagcatga cggcgactac 22560

ctccacctga gcgggggga ggacgcgctc atcaagcatc tggcccggca ggccaccatc 22620

gtcaaggatg cgctgctcga ccgcaccgag gtgcccctca gcgtggagga gctcagccgc 22680

gcctacgagt tgaacctctt ctcgccgcgc gtgcccccca agcgccagcc caatggcacc 22740

tgcgagccca acccgcgcct caacttctac ccggtcttcg cggtgcccga ggccctggcc 22800

acctaccaca tctttttcaa gaaccaaaag atccccgtct cctgccgcgc caaccgcacc 22860

cgcgccgacg ccctttttcaa cctgggtccc ggcgcccgcc tacctgatat cgcctccttg 22920

gaagaggttc ccaagatctt cgagggtctg ggcagcgacg agactcgggc cgcgaacgct 22980

ctgcaaggag aaggaggaga gcatgagcac cacagcgccc tggtcgagtt ggaaggcgac 23040

aacgcgcggc tggcggtgct caaacgcacg gtcgagctga cccatttcgc ctacccggct 23100

ctgaacctgc cccccaaagt catgagcgcg gtcatggacc aggtgctcat caagcgcgcg 23160

tcgcccatct ccgaggacga gggcatgcaa gactccgagg agggcaagcc cgtggtcagc 23220

gacgagcagc tggcccggtg gctgggtcct aatgctagtc cccagagttt ggaagagcgg 23280

cgcaaactca tgatggccgt ggtcctggtg accgtggagc tggagtgcct gcgccgcttc 23340

ttcgccgacg cggagaccct gcgcaaggtc gaggagaacc tgcactacct cttcaggcac 23400

gggttcgtgc gccaggcctg caagatctcc aacgtggagc tgaccaacct ggtctcctac 23460

atgggcatct tgcacgagaa ccgcctgggg cagaacgtgc tgcacaccac cctgcgcggg 23520

gaggcccggc gcgactacat ccgcgactgc gtctacctct acctctgcca cacctggcag 23580

acgggcatgg gcgtgtggca gcagtgtctg gaggagcaga acctgaaaga gctctgcaag 23640

ctcctgcaga agaacctcaa gggtctgtgg accgggttcg acgagcgcac caccgcctcg 23700

gacctggccg acctcatttt ccccgagcgc ctcaggctga cgctgcgcaa cggcctgccc 23760

gactttatga gccaaagcat gttgcaaaac tttcgctctt tcatcctcga acgctccgga 23820

atcctgcccg ccacctgctc cgcgctgccc tcggacttcg tgccgctgac cttccgcgag 23880

tgccccccgc cgctgtggag ccactgctac ctgctgcgcc tggccaacta cctggcctac 23940

cactcggacg tgatcgagga cgtcagcggc gagggcctgc tcgagtgcca ctgccgctgc 24000

aacctctgca cgccgcaccg ctccctggcc tgcaaccccc agctgctgag cgagacccag 24060

atcatcggca ccttcgagtt gcaagggccc agcgaaggcg agggttcagc cgccaagggg 24120

ggtctgaaac tcaccccggg gctgtggacc tcggcctact tgcgcaagtt cgtgcccgag 24180

gactaccatc ccttcgagat caggttctac gaggaccaat cccatccgcc caaggccgag 24240

ctgtcggcct gcgtcatcac ccaggggcg atcctggccc aattgcaagc catccagaaa 24300

tcccgccaag aattcttgct gaaaaagggc cgcggggtct acctcgaccc ccagaccggt 24360

gaggagctca accccggctt cccccaggat gccccgagga aacaagaagc tgaaagtgga 24420

gctgccgccc gtggaggatt tggaggaaga ctgggagaac agcagtcagg cagaggagga 24480

ggagatggag gaagactggg acagcactca ggcagaggag gacagcctgc aagacagtct 24540

ggaggaagac gaggaggagg cagaggagga ggtggaagaa gcagccgccg ccagaccgtc 24600

gtcctcggcg ggggagaaag caagcagcac ggataccatc tccgctccgg gtcggggtcc 24660

cgctcgacca cacagtagat gggacgagac cggacgattc ccgaacccca ccacccagac 24720

cggtaagaag gagcggcagg gatacaagtc ctggcggggg cacaaaaacg ccatcgtctc 24780

ctgcttgcag gcctgcgggg gcaacatctc cttcacccgg cgctacctgc tcttccaccg 24840

cggggtgaac tttccccgca acatcttgca ttactaccgt cacctccaca gcccctacta 24900

cttccaagaa gaggcagcag cagcagaaaa agaccagcag aaaaccagca gctagaaaat 24960

ccacagcggc ggcagcaggt ggactgagga tcgcggcgaa cgagccggcg caaacccggg 25020

agctgaggaa ccggatcttt cccaccctct atgccatctt ccagcagagt cgggggcagg 25080

agcaggaact gaaagtcaag aaccgttctc tgcgctcgct cacccgcagt tgtctgtatc 25140

acaagagcga agaccaactt cagcgcactc tcgaggacgc cgaggctctc ttcaacaagt 25200

actgcgcgct cactcttaaa gagtagcccg cgcccgccca gtcgcagaaa aaggcgggaa 25260

ttacgtcacc tgtgcccttc gccctagccg cctccaccca tcatcatgag caaagagatt 25320

cccacgcctt acatgtggag ctaccagccc cagatgggcc tggccgccgg tgccgcccag 25380

gactactcca cccgcatgaa ttggctcagc gccgggcccg cgatgatctc acgggtgaat 25440

gacatccgcg cccaccgaaa ccagatactc ctagaacagt cagcgctcac cgccacgccc 25500

cgcaatcacc tcaatccgcg taattggccc gccgccctgg tgtaccagga aattccccag 25560

cccacgaccg tactacttcc gcgagacgcc caggccgaag tccagctgac taactcaggt 25620

gtccagctgg cgggcggcgc caccctgtgt cgtcaccgcc ccgctcaggg tataaagcgg 25680

ctggtgatcc ggggcagagg cacacagctc aacgacgagg tggtgagctc ttcgctgggt 25740

ctgcgacctg acggagtctt ccaactcgcc ggatcgggga gatcttcctt cacgcctcgt 25800

caggccgtcc tgactttgga gagttcgtcc tcgcagcccc gctcgggtgg catcggcact 25860

ctccagttcg tggaggagtt cactccctcg gtctacttca acccctttctc cggctccccc 25920

ggccactacc cggacgagtt catcccgaac ttcgacgcca tcagcgagtc ggtggacggc 25980

tacgattgaa actaatcacc cccttatcca gtgaaataaa gatcatattg atgatgattt 26040

tacagaaata aaaaataatc atttgatttg aaataaagat acaatcatat tgatgatttg 26100

agtttaacaa aaaaataaag aatcacttac ttgaaatctg ataccaggtc tctgtccatg 26160

ttttctgcca acaccacttc actcccctct tcccagctct ggtactgcag gccccggcgg 26220

gctgcaaact tcctccacac gctgaagggg atgtcaaatt cctcctgtcc ctcaatcttc 26280

attttatctt ctatcagatg tccaaaaagc gcgtccgggt ggatgatgac ttcgaccccg 26340

tctaccccta cgatgcagac aacgcaccga ccgtgccctt catcaacccc cccttcgtct 26400

cttcagatgg attccaagag aagcccctgg gggtgttgtc cctgcgactg gccgaccccg 26460

tcaccaccaa gaacggggaa atcaccctca agctgggaga gggggtggac ctcgattcct 26520

cgggaaaact catctccaac acggccacca aggccgccgc ccctctcagt ttttccaaca 26580

acaccatttc ccttaacatg gatcacccct tttacactaa agatggaaaa ttatccttac 26640

aagtttctcc accattaaat atactgagaa caagcattct aaacacacta gctttaggtt 26700

ttggatcagg tttaggactc cgtggctctg ccttggcagt acagttagtc tctccactta 26760

catttgatac tgatggaaac ataaagctta ccttagacag aggtttgcat gttacaacag 26820

gagatgcaat tgaaagcaac ataagctggg ctaaaggttt aaaatttgaa gatggagcca 26880

tagcaaccaa cattggaaat gggttagagt ttggaagcag tagtacagaa acaggtgttg 26940

atgatgctta cccaatccaa gttaaacttg gatctggcct tagctttgac agtacaggag 27000

ccataatggc tggtaacaaa gaagacgata aactcacttt gtggacaaca cctgatccat 27060

caccaaactg tcaaatactc gcagaaaatg atgcaaaact aacactttgc ttgactaaat 27120

gtggtagtca aatactggcc actgtgtcag tcttagttgt aggaagtgga aacctaaacc 27180

ccattactgg caccgtaagc agtgctcagg tgtttctacg ttttgatgca aacggtgttc 27240

ttttaacaga acattctaca ctaaaaaaat actgggggta taggcaggga gatagcatag 27300

atggcactcc atataccaat gctgtaggat tcatgcccaa tttaaaagct tatccaaagt 27360

cacaaagttc tactactaaa aataatatag tagggcaagt atacatgaat ggagatgttt 27420

caaaacctat gcttctcact ataaccctca atggtactga tgacagcaac agtacatatt 27480

caatgtcatt ttcatacacc tggactaatg gaagctatgt tggagcaaca tttggggcta 27540

actcttatac cttctcatac atcgcccaag aatgaacact gtatcccacc ctgcatgcca 27600

acccttccca ccccactctg tggaacaaac tctgaaacac aaaataaaat aaagttcaag 27660

tgttttattg attcaacagt tttacaggat tcgagcagtt atttttcctc caccctccca 27720

ggacatggaa tacaccaccc tctccccccg cacagccttg aacatctgaa tgccattggt 27780

gatggacatg cttttggtct ccacgttcca cacagtttca gagcgagcca gtctcgggtc 27840

ggtcagggag atgaaaccct ccgggcactc ccgcatctgc acctcacagc tcaacagctg 27900

aggattgtcc tcggtggtcg ggatcacggt tatctggaag aagcagaaga gcggcggtgg 27960

gaatcatagt ccgcgaacgg gatcggccgg tggtgtcgca tcaggccccg cagcagtcgc 28020

tgccgccgcc gctccgtcaa gctgctgctc agggggtccg ggtccaggga ctccctcagc 28080

atgatgccca cggccctcag catcagtcgt ctggtgcggc gggcgcagca gcgcatgcgg 28140

atctcgctca ggtcgctgca gtacgtgcaa cacagaacca ccaggttgtt caacagtcca 28200

tagttcaaca cgctccagcc gaaactcatc gcgggaagga tgctacccac gtggccgtcg 28260

taccagatcc tcaggtaaat caagtggtgc cccctccaga acacgctgcc cacgtacatg 28320

atctccttgg gcatgtggcg gttcaccacc tcccggtacc acatcaccct ctggttgaac 28380

atgcagcccc ggatgatcct gcggaaccac agggccagca ccgccccgcc cgccatgcag 28440

cgaagagacc ccgggtcccg gcaatggcaa tggaggaccc accgctcgta cccgtggatc 28500

atctgggagc tgaacaagtc tatgttggca cagcacaggc atatgctcat gcatctcttc 28560

agcactctca actcctcggg ggtcaaaacc atatcccagg gcacggggaa ctcttgcagg 28620

acagcgaacc ccgcagaaca gggcaatcct cgcacagaac ttacattgtg catggacagg 28680

gtatcgcaat caggcagcac cgggtgatcc tccaccagag aagcgcgggt ctcggtctcc 28740

tcacagcgtg gtaaggggggc cggccgatac gggtgatggc gggacgcggc tgatcgtgtt 28800

cgcgaccgtg tcatgatgca gttgctttcg gacattttcg tacttgctgt agcagaacct 28860

ggtccgggcg ctgcacaccg atcgccggcg gcggtctcgg cgcttggaac gctcggtgtt 28920

gaaattgtaa aacagccact ctctcagacc gtgcagcaga tctagggcct caggagtgat 28980

gaagatccca tcatgcctga tggctctgat cacatcgacc accgtggaat gggccagacc 29040

cagccagatg atgcaatttt gttgggtttc ggtgacggcg agcctcggga acaacgatga 29100

agtaaatgca agcggtgcgt tccagcatgg ttagttagct gatctgtaga aaaaacaaaa 29160

atgaacatta aaccatgcta gcctggcgaa caggtgggta aatcgttctc tccagcacca 29220

ggcaggccac ggggtctccg gcgcgaccct cgtaaaaatt gtcgctatga ttgaaaacca 29280

tcacagagag acgttcccgg tggccggcgt gaatgattcg acaagatgaa tacacccccg 29340

gaacattggc gtccgcgagt gaaaaaaagc gcccgaggaa gcaataaggc actacaatgc 29400

tcagtctcaa gtccagcaaa gcgatgccat gcggatgaag cacaaaattc tcaggtgcgt 29460

acaaaatgta attactcccc tcctgcacag gcagcaaagc ccccgatccc tccaggtaca 29520

catacaaagc ctcagcgtcc atagcttacc gagcagcagc acacaacagg cgcaagagtc 29580

agagaaaggc tgagctctaa cctgtccacc cgctctctgc tcaatatata gcccagatct 29640

acactgacgt aaaggccaaa gtctaaaaat acccgccaaa taatcacaca cgcccagcac 29700

acgcccagaa accggtgaca cactcaaaaa aatacgcgca cttcctcaaa cgcccaaaac 29760

tgccgtcatt tccgggttcc cacgctacgt catcaaaaca cgactttcaa attccgtcga 29820

ccgttaaaaa cgtcacccgc cccgccccta acggtcgccc gtctctcagc caatcagcgc 29880

cccgcatccc caaattcaaa cacctcattt gcatattaac gcgcacaaaa agtttgaggt 29940

atattattga tgatg 29955

<210> 59
<211> 28278
<212> DNA
<213> Artificial Sequence

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

<400> 59
catcttcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataaggtagc gagtgagtag 600

tgttctgggg cgggggagga cctgcatgag ggccagaata actgaaatct gtgcttttct 660

gtgtgttgca gcagcatgag cggaagcggc tcctttgagg gaggggtatt cagcccttat 720

ctgacggggc gtctcccctc ctgggcggga gtgcgtcaga atgtgatggg atccacggtg 780

gacggccggc ccgtgcagcc cgcgaactct tcaaccctga cctatgcaac cctgagctct 840

tcgtcgttgg acgcagctgc cgccgcagct gctgcatctg ccgccagcgc cgtgcgcgga 900

atggccatgg gcgccggcta ctacggcact ctggtggcca actcgagttc caccaataat 960

cccgccagcc tgaacgagga gaagctgttg ctgctgatgg cccagctcga ggccttgacc 1020

cagcgcctgg gcgagctgac ccagcaggtg gctcagctgc aggagcagac gcgggccgcg 1080

gttgccacgg tgaaatccaa ataaaaaatg aatcaataaa taaacggaga cggttgttga 1140

ttttaacaca gagtctgaat ctttatttga tttttcgcgc gcggtaggcc ctggaccacc 1200

ggtctcgatc attgagcacc cggtggatct tttccaggac ccggtagagg tgggcttgga 1260

tgttgaggta catgggcatg agcccgtccc gggggtggag gtagctccat tgcagggcct 1320

cgtgctcggg ggtggtgttg taaatcaccc agtcatagca ggggcgcagg gcatggtgtt 1380

gcacaatatc tttgaggagg agactgatgg ccacgggcag ccctttggtg taggtgttta 1440

caaatctgtt gagctgggag ggatgcatgc ggggggagat gaggtgcatc ttggcctgga 1500

tcttgagatt ggcgatgtta ccgcccagat cccgcctggg gttcatgttg tgcaggacca 1560

ccagcacggt gtatccggtg cacttgggga atttatcatg caacttggaa gggaaggcgt 1620

gaaagaattt ggcgacgcct ttgtgcccgc ccaggttttc catgcactca tccatgatga 1680

tggcgatggg cccgtgggcg gcggcctggg caaagacgtt tcgggggtcg gacacatcat 1740

agttgtggtc ctgggtgagg tcatcatagg ccattttaat gaatttgggg cggagggtgc 1800

cggactgggg gacaaaggta ccctcgatcc cgggggcgta gttcccctca cagatctgca 1860

tctcccaggc tttgagctcg gaggggggga tcatgtccac ctgcggggcg ataaagaaca 1920

cggtttccgg ggcgggggag atgagctggg ccgaaagcaa gttccggagc agctgggact 1980

tgccgcagcc ggtggggccg tagatgaccc cgatgaccgg ctgcaggtgg tagttgaggg 2040

agagacagct gccgtcctcc cggaggaggg gggccacctc gttcatcatc tcgcgcacgt 2100

gcatgttctc gcgcaccagt tccgccagga ggcgctctcc ccccagggat aggagctcct 2160

ggagcgaggc gaagtttttc agcggcttga gtccgtcggc catgggcatt ttggagaggg 2220

tttgttgcaa gagttccagg cggtcccaga gctcggtgat gtgctctacg gcatctcgat 2280

ccagcagacc tcctcgtttc gcgggttggg acggctgcgg gagtagggca ccagacgatg 2340

ggcgtccagc gcagccaggg tccggtcctt ccagggtcgc agcgtccgcg tcagggtggt 2400

ctccgtcacg gtgaaggggt gcgcgccggg ctgggcgctt gcgagggtgc gcttcaggct 2460

catccggctg gtcgaaaacc gctcccgatc ggcgccctgc gcgtcggcca ggtagcaatt 2520

gaccatgagt tcgtagttga gcgcctcggc cgcgtggcct ttggcgcgga gcttaccttt 2580

ggaagtctgc ccgcaggcgg gacagaggag ggacttgagg gcgtagagct tgggggcgag 2640

gaagacggac tcgggggcgt aggcgtccgc gccgcagtgg gcgcagacgg tctcgcactc 2700

cacgagccag gtgaggtcgg gctggtcggg gtcaaaaacc agtttcccgc cgttcttttt 2760

gatgcgtttc ttacctttgg tctccatgag ctcgtgtccc cgctgggtga caaagaggct 2820

gtccgtgtcc ccgtagaccg actttatggg ccggtcctcg agcggtgtgc cgcggtcctc 2880

ctcgtagagg aaccccgccc actccgagac gaaagcccgg gtccaggcca gcacgaagga 2940

ggccacgtgg gacgggtagc ggtcgttgtc caccagcggg tccacctttt ccagggtatg 3000

caaacacatg tccccctcgt ccacatccag gaaggtgatt ggcttgtaag tgtaggccac 3060

gtgaccgggg gtcccggccg gggggtata aaagggtgcg ggtccctgct cgtcctcact 3120

gtcttccgga tcgctgtcca ggagcgccag ctgttggggt aggtattccc tctcgaaggc 3180

gggcatgacc tcggcactca ggttgtcagt ttctagaaac gaggaggatt tgatattgac 3240

ggtgccggcg gagatgcctt tcaagagccc ctcgtccatc tggtcagaaa agacgatctt 3300

tttgttgtcg agcttggtgg cgaaggagcc gtagagggcg ttggagagga gcttggcgat 3360

ggagcgcatg gtctggtttt tttccttgtc ggcgcgctcc ttggcggcga tgttgagctg 3420

cacgtactcg cgcgccacgc acttccattc ggggaagacg gtggtcagct cgtcgggcac 3480

gattctgacc tgccagcccc gattatgcag ggtgatgagg tccacactgg tggccacctc 3540

gccgcgcagg ggctcattag tccagcagag gcgtccgccc ttgcgcgagc agaaggggg 3600

caggggtcc agcatgacct cgtcgggggg gtcggcatcg atggtgaaga tgccgggcag 3660

gaggtcgggg tcaaagtagc tgatggaagt ggccagatcg tccagggcag cttgccattc 3720

gcgcacggcc agcgcgcgct cgtagggact gaggggcgtg ccccagggca tgggatgggt 3780

aagcgcggag gcgtacatgc cgcagatgtc gtagacgtag aggggctcct cgaggatgcc 3840

gatgtaggtg gggtagcagc gccccccgcg gatgctggcg cgcacgtagt catacagctc 3900

gtgcgagggg gcgaggagcc ccgggcccag gttggtgcga ctgggctttt cggcgcggta 3960

gacgatctgg cggaaaatgg catgcgagtt ggaggagatg gtgggccttt ggaagatgtt 4020

gaagtgggcg tggggcagtc cgaccgagtc gcggatgaag tgggcgtagg agtcttgcag 4080

cttggcgacg agctcggcgg tgactaggac gtccagagcg cagtagtcga gggtctcctg 4140

gatgatgtca tacttgagct gtccctttg tttccacagc tcgcggttga gaaggaactc 4200

ttcgcggtcc ttccagtact cttcgagggg gaacccgtcc tgatctgcac ggtaagagcc 4260

tagcatgtag aactggttga cggccttgta ggcgcagcag cccttctcca cggggagggc 4320

gtaggcctgg gcggccttgc gcagggaggt gtgcgtgagg gcgaaagtgt ccctgaccat 4380

gaccttgagg aactggtgct tgaagtcgat atcgtcgcag ccccccctgct cccagagctg 4440

gaagtccgtg cgcttcttgt aggcggggtt gggcaaagcg aaagtaacat cgttgaagag 4500

gatcttgccc gcgcggggca taaagttgcg agtgatgcgg aaaggttggg gcacctcggc 4560

ccggttgttg atgacctggg cggcgagcac gatctcgtcg aagccgttga tgttgtggcc 4620

cacgatgtag agttccacga atcgcggacg gcccttgacg tggggcagtt tcttgagctc 4680

ctcgtaggtg agctcgtcgg ggtcgctgag cccgtgctgc tcgagcgccc agtcggcgag 4740

atgggggttg gcgcggagga aggaagtcca gagatccacg gccagggcgg tttgcagacg 4800

gtcccggtac tgacggaact gctgcccgac ggccattttt tcgggggtga cgcagtagaa 4860

ggtgcggggg tccccgtgcc agcgatccca tttgagctgg agggcgagat cgagggcgag 4920

ctcgacgagc cggtcgtccc cggagagttt catgaccagc atgaagggga cgagctgctt 4980

gccgaaggac cccatccagg tgtaggtttc cacatcgtag gtgaggaaga gcctttcggt 5040

gcgaggatgc gagccgatgg ggaagaactg gatctcctgc caccaattgg aggaatggct 5100

gttgatgtga tggaagtaga aatgccgacg gcgcgccgaa cactcgtgct tgtgtttata 5160

caagcggcca cagtgctcgc aacgctgcac gggatgcacg tgctgcacga gctgtacctg 5220

agttcctttg acgaggaatt tcagtgggaa gtggagtcgt ggcgcctgca tctcgtgctg 5280

tactacgtcg tggtggtcgg cctggccctc ttctgcctcg atggtggtca tgctgacgag 5340

cccgcgcggg aggcaggtcc agacctcggc gcgagcgggt cggagagcga ggacgagggc 5400

gcgcaggccg gagctgtcca gggtcctgag acgctgcgga gtcaggtcag tgggcagcgg 5460

cggcgcgcgg ttgacttgca ggagtttttc cagggcgcgc gggaggtcca gatggtactt 5520

gatctccacc gcgccattgg tggcgacgtc gatggcttgc agggtcccgt gcccctgggg 5580

tgtgaccacc gtcccccgtt tcttcttggg cggctggggc gacgggggcg gtgcctcttc 5640

catggttaga agcggcggcg aggacgcgcg ccgggcggca ggggcggctc ggggcccgga 5700

ggcaggggcg gcaggggcac gtcggcgccg cgcgcgggta ggttctggta ctgcgcccgg 5760

agaagactgg cgtgagcgac gacgcgacgg ttgacgtcct ggatctgacg cctctgggtg 5820

aaggccacgg gacccgtgag tttgaacctg aaagagagtt cgacagaatc aatctcggta 5880

tcgttgacgg cggcctgccg caggatctct tgcacgtcgc ccgagttgtc ctggtaggcg 5940

atctcggtca tgaactgctc gatctcctcc tcttgaaggt ctccgcggcc ggcgcgctcc 6000

acggtggccg cgaggtcgtt ggagatgcgg cccatgagct gcgagaaggc gttcatgccc 6060

gcctcgttcc agacgcggct gtagaccacg acgccctcgg gatcgcgggc gcgcatgacc 6120

acctgggcga ggttgagctc cacgtggcgc gtgaagaccg cgtagttgca gaggcgctgg 6180

tagaggtagt tgagcgtggt ggcgatgtgc tcggtgacga agaaatacat gatccagcgg 6240

cggagcggca tctcgctgac gtcgcccagc gcctccaaac gttccatggc ctcgtaaaag 6300

tccacggcga agttgaaaaa ctgggagttg cgcgccgaga cggtcaactc ctcctccaga 6360

agacggatga gctcggcgat ggtggcgcgc acctcgcgct cgaaggcccc cgggagttcc 6420

tccacttcct cttcttcctc ctccactaac atctcttcta cttcctcctc aggcggcagt 6480

ggtggcgggg gaggggcct gcgtcgccgg cggcgcacgg gcagacggtc gatgaagcgc 6540

tcgatggtct cgccgcgccg gcgtcgcatg gtctcggtga cggcgcgccc gtcctcgcgg 6600

ggccgcagcg tgaagacgcc gccgcgcatc tccaggtggc cgggggggtc cccgttgggc 6660

agggagaggg cgctgacgat gcatcttatc aattgccccg tagggactcc gcgcaaggac 6720

ctgagcgtct cgagatccac gggatctgaa aaccgctgaa cgaaggcttc gagccagtcg 6780

cagtcgcaag gtaggctgag cacggtttct tctggcgggt catgttggtt gggagcgggg 6840

cgggcgatgc tgctggtgat gaagttgaaa taggcggttc tgagacggcg gatggtggcg 6900

aggagcacca ggtctttggg cccggcttgc tggatgcgca gacggtcggc catgccccag 6960

gcgtggtcct gacacctggc caggtccttg tagtagtcct gcatgagccg ctccacgggc 7020

acctcctcct cgcccgcgcg gccgtgcatg cgcgtgagcc cgaagccgcg ctggggctgg 7080

acgagcgcca ggtcggcgac gacgcgctcg gcgaggatgg cttgctggat ctgggtgagg 7140

gtggtctgga agtcatcaaa gtcgacgaag cggtggtagg ctccggtgtt gatggtgtag 7200

gagcagttgg ccatgacgga ccagttgacg gtctggtggc ccggacgcac gagctcgtgg 7260

tacttgaggc gcgagtaggc gcgcgtgtcg aagatgtagt cgttgcaggt gcgcaccagg 7320

tactggtagc cgatgaggaa gtgcggcggc ggctggcggt agagcggcca tcgctcggtg 7380

gcgggggcgc cgggcgcgag gtcctcgagc atggtgcggt ggtagccgta gatgtacctg 7440

gacatccagg tgatgccggc ggcggtggtg gaggcgcgcg ggaactcgcg gacgcggttc 7500

cagatgttgc gcagcggcag gaagtagttc atggtgggca cggtctggcc cgtgaggcgc 7560

gcgcagtcgt ggatgctcta tacgggcaaa aacgaaagcg gtcagcggct cgactccgtg 7620

gcctggaggc taagcgaacg ggttgggctg cgcgtgtacc ccggttcgaa tctcgaatca 7680

ggctggagcc gcagctaacg tggtattggc actcccgtct cgacccaagc ctgcaccaac 7740

cctccaggat acggaggcgg gtcgttttgc aacttttttt tggaggccgg atgagactag 7800

taagcgcgga aagcggccga ccgcgatggc tcgctgccgt agtctggaga agaatcgcca 7860

gggttgcgtt gcggtgtgcc ccggttcgag gccggccgga ttccgcggct aacgagggcg 7920

tggctgcccc gtcgtttcca agaccccata gccagccgac ttctccagtt acggagcgag 7980

cccctctttt gttttgtttg tttttgccag atgcatcccg tactgcggca gatgcgcccc 8040

caccaccctc caccgcaaca acagcccccct ccacagccgg cgcttctgcc cccgccccag 8100

cagcaacttc cagccacgac cgccgcggcc gccgtgagcg gggctggaca gagttatgat 8160

caccagctgg ccttggaaga gggcgagggg ctggcgcgcc tgggggcgtc gtcgccggag 8220

cggcacccgc gcgtgcagat gaaaagggac gctcgcgagg cctacgtgcc caagcagaac 8280

ctgttcagag acaggagcgg cgaggagccc gaggagatgc gcgcggcccg gttccacgcg 8340

gggcgggagc tgcggcgcgg cctggaccga aagagggtgc tgagggacga ggatttcgag 8400

gcggacgagc tgacggggat cagccccgcg cgcgcgcacg tggccgcggc caacctggtc 8460

acggcgtacg agcagaccgt gaaggaggag agcaacttcc aaaaatcctt caacaaccac 8520

gtgcgcaccc tgatcgcgcg cgaggaggtg accctgggcc tgatgcacct gtgggacctg 8580

ctggaggcca tcgtgcagaa ccccaccagc aagccgctga cggcgcagct gttcctggtg 8640

gtgcagcata gtcgggacaa cgaagcgttc agggaggcgc tgctgaatat caccgagccc 8700

gagggccgct ggctcctgga cctggtgaac attctgcaga gcatcgtggt gcaggagcgc 8760

gggctgccgc tgtccgagaa gctggcggcc atcaacttct cggtgctgag tttgggcaag 8820

tactacgcta ggaagatcta caagaccccg tacgtgccca tagacaagga ggtgaagatc 8880

gacgggtttt acatgcgcat gaccctgaaa gtgctgaccc tgagcgacga tctgggggtg 8940

taccgcaacg acaggatgca ccgtgcggtg agcgccagca ggcggcgcga gctgagcgac 9000

caggagctga tgcatagtct gcagcgggcc ctgaccgggg ccgggaccga gggggagagc 9060

tactttgaca tgggcgcgga cctgcactgg cagcccagcc gccgggcctt ggaggcggcg 9120

gcaggaccct acgtagaaga ggtggacgat gaggtggacg aggagggcga gtacctggaa 9180

gactgatggc gcgaccgtat ttttgctaga tgcaacaaca acagccacct cctgatcccg 9240

cgatgcgggc ggcgctgcag agccagccgt ccggcattaa ctcctcggac gattggaccc 9300

aggccatgca acgcatcatg gcgctgacga cccgcaaccc cgaagccttt agacagcagc 9360

cccaggccaa ccggctctcg gccatcctgg aggccgtggt gccctcgcgc tccaacccca 9420

cgcacgagaa ggtcctggcc atcgtgaacg cgctggtgga gaacaaggcc atccgcggcg 9480

acgaggccgg cctggtgtac aacgcgctgc tggagcgcgt ggcccgctac aacagcacca 9540

acgtgcagac caacctggac cgcatggtga ccgacgtgcg cgaggccgtg gcccagcgcg 9600

agcggttcca ccgcgagtcc aacctgggat ccatggtggc gctgaacgcc ttcctcagca 9660

cccagcccgc caacgtgccc cggggccagg aggactacac caacttcatc agcgccctgc 9720

gcctgatggt gaccgaggtg ccccagagcg aggtgtacca gtccgggccg gactacttct 9780

tccagaccag tcgccagggc ttgcagaccg tgaacctgag ccaggctttc aagaacttgc 9840

agggcctgtg gggcgtgcag gccccggtcg gggaccgcgc gacggtgtcg agcctgctga 9900

cgccgaactc gcgcctgctg ctgctgctgg tggccccctt cacggacagc ggcagcatca 9960

accgcaactc gtacctgggc tacctgatta acctgtaccg cgaggccatc ggccaggcgc 10020

acgtggacga gcagacctac caggagatca cccacgtgag ccgcgccctg ggccaggacg 10080

acccgggcaa cctggaagcc accctgaact ttttgctgac caaccggtcg cagaagatcc 10140

cgccccagta cgcgctcagc accgaggagg agcgcatcct gcgttacgtg cagcagagcg 10200

tgggcctgtt cctgatgcag gaggggggca cccccagcgc cgcgctcgac atgaccgcgc 10260

gcaacatgga gcccagcatg tacgccagca accgcccgtt catcaataaa ctgatggact 10320

acttgcatcg ggcggccgcc atgaactctg actatttcac caacgccatc ctgaatcccc 10380

actggctccc gccgccgggg ttctacacgg gcgagtacga catgcccgac cccaatgacg 10440

ggttcctgtg ggacgatgtg gacagcagcg tgttctcccc ccgaccgggt gctaacgagc 10500

gccccttgtg gaagaaggaa ggcagcgacc gacgcccgtc ctcggcgctg tccggccgcg 10560

agggtgctgc cgcggcggtg cccgaggccg ccagtccttt cccgagcttg cccttctcgc 10620

tgaacagtat ccgcagcagc gagctgggca ggatcacgcg cccgcgcttg ctgggcgaag 10680

aggagtactt gaatgactcg ctgttgagac ccgagcggga gaagaacttc cccaataacg 10740

ggatagaaag cctggtggac aagatgagcc gctggaagac gtatgcgcag gagcacaggg 10800

acgatccccg ggcgtcgcag ggggccacga gccggggcag cgccgcccgt aaacgccggt 10860

ggcacgacag gcagcgggga cagatgtggg acgatgagga ctccgccgac gacagcagcg 10920

tgttggactt gggtgggagt ggtaacccgt tcgctcacct gcgcccccgt atcgggcgca 10980

tgatgtaaga gaaaccgaaa ataaatgata ctcaccaagg ccatggcgac cagcgtgcgt 11040

tcgtttcttc tctgttgttg ttgtatctag tatgatgagg cgtgcgtacc cggagggtcc 11100

tcctccctcg tacgagagcg tgatgcagca ggcgatggcg gcggcggcga tgcagccccc 11160

gctggaggct ccttacgtgc ccccgcggta cctggcgcct acggaggggc ggaacagcat 11220

tcgttactcg gagctggcac ccttgtacga taccacccgg ttgtacctgg tggacaacaa 11280

gtcggcggac atcgcctcgc tgaactacca gaacgaccac agcaacttcc tgaccaccgt 11340

ggtgcagaac aatgacttca cccccacgga ggccagcacc cagaccatca actttgacga 11400

gcgctcgcgg tggggcggcc agctgaaaac catcatgcac accaacatgc ccaacgtgaa 11460

cgagttcatg tacagcaaca agttcaaggc gcgggtgatg gtctcccgca agacccccaa 11520

tggggtgaca gtgacagagg attatgatgg tagtcaggat gagctgaagt atgaatgggt 11580

ggaatttgag ctgcccgaag gcaacttctc ggtgaccatg accatcgacc tgatgaacaa 11640

cgccatcatc gacaattact tggcggtggg gcggcagaac ggggtgctgg agagcgacat 11700

cggcgtgaag ttcgacacta ggaacttcag gctgggctgg gaccccgtga ccgagctggt 11760

catgcccggg gtgtacacca acgaggcttt ccatcccgat attgtcttgc tgcccggctg 11820

cggggtggac ttcaccgaga gccgcctcag caacctgctg ggcattcgca agaggcagcc 11880

cttccaggaa ggcttccaga tcatgtacga ggatctggag gggggcaaca tccccgcgct 11940

cctggatgtc gacgcctatg agaaaagcaa ggaggatgca gcagctgaag caactgcagc 12000

cgtagctacc gcctctaccg aggtcagggg cgataatttt gcaagcgccg cagcagtggc 12060

agcggccgag gcggctgaaa ccgaaagtaa gatagtcatt cagccggtgg agaaggatag 12120

caagaacagg agctacaacg tactaccgga caagataaac accgcctacc gcagctggta 12180

cctagcctac aactatggcg accccgagaa gggcgtgcgc tcctggacgc tgctcaccac 12240

ctcggacgtc acctgcggcg tggagcaagt ctactggtcg ctgcccgaca tgatgcaaga 12300

cccggtcacc ttccgctcca cgcgtcaagt tagcaactac ccggtggtgg gcgccgagct 12360

cctgcccgtc tactccaaga gcttcttcaa cgagcaggcc gtctactcgc agcagctgcg 12420

cgccttcacc tcgcttacgc acgtcttcaa ccgcttcccc gagaaccaga tcctcgtccg 12480

cccgcccgcg cccaccatta ccaccgtcag tgaaaacgtt cctgctctca cagatcacgg 12540

gaccctgccg ctgcgcagca gtatccgggg agtccagcgc gtgaccgtta ctgacgccag 12600

acgccgcacc tgcccctacg tctacaaggc cctgggcata gtcgcgccgc gcgtcctctc 12660

gagccgcacc ttctaaatgt ccattctcat ctcgcccagt aataacaccg gttggggcct 12720

gcgcgcgccc agcaagatgt acggaggcgc tcgccaacgc tccacgcaac accccgtgcg 12780

cgtgcgcggg cacttccgcg ctccctgggg cgccctcaag ggccgcgtgc ggtcgcgcac 12840

caccgtcgac gacgtgatcg accaggtggt ggccgacgcg cgcaactaca cccccgccgc 12900

cgcgcccgtc tccaccgtgg acgccgtcat cgacagcgtg gtggccgacg cgcgccggta 12960

cgcccgcgcc aagagccggc ggcggcgcat cgcccggcgg caccggagca cccccgccat 13020

gcgcgcggcg cgagccttgc tgcgcagggc caggcgcacg ggacgcaggg ccatgctcag 13080

ggcggccaga cgcgcggctt caggcgccag cgccggcagg acccggagac gcgcggccac 13140

ggcggcggca gcggccatcg ccagcatgtc ccgcccgcgg cgagggaacg tgtactgggt 13200

gcgcgacgcc gccaccggtg tgcgcgtgcc cgtgcgcacc cgcccccctc gcacttgaag 13260

atgttcactt cgcgatgttg atgtgtccca gcggcgagga ggatgtccaa gcgcaaattc 13320

aaggaagaga tgctccaggt catcgcgcct gagatctacg gccctgcggt ggtgaaggag 13380

gaaagaaagc cccgcaaaat caagcgggtc aaaaaggaca aaaaggaaga agaaagtgat 13440

gtggacggat tggtggagtt tgtgcgcgag ttcgcccccc ggcggcgcgt gcagtggcgc 13500

gggcggaagg tgcaaccggt gctgagaccc ggcaccaccg tggtcttcac gcccggcgag 13560

cgctccggca ccgcttccaa gcgctcctac gacgaggtgt acggggatga tgatattctg 13620

gagcaggcgg ccgagcgcct gggcgagttt gcttacggca agcgcagccg ttccgcaccg 13680

aaggaagagg cggtgtccat cccgctggac cacggcaacc ccacgccgag cctcaagccc 13740

gtgaccttgc agcaggtgct gccgaccgcg gcgccgcgcc gggggttcaa gcgcgagggc 13800

gaggatctgt accccaccat gcagctgatg gtgcccaagc gccagaagct ggaagacgtg 13860

ctggagacca tgaaggtgga cccggacgtg cagcccgagg tcaaggtgcg gcccatcaag 13920

caggtggccc cgggcctggg cgtgcagacc gtggacatca agattcccac ggagcccatg 13980

gaaacgcaga ccgagcccat gatcaagccc agcaccagca ccatggaggt gcagacggat 14040

ccctggatgc catcggctcc tagtcgaaga ccccggcgca agtacggcgc ggccagcctg 14100

ctgatgccca actacgcgct gcatccttcc atcatcccca cgccgggcta ccgcggcacg 14160

cgcttctacc gcggtcatac cagcagccgc cgccgcaaga ccaccactcg ccgccgccgt 14220

cgccgcaccg ccgctgcaac cacccctgcc gccctggtgc ggagagtgta ccgccgcggc 14280

cgcgcacctc tgaccctgcc gcgcgcgcgc taccacccga gcatcgccat ttaaactttc 14340

gcctgctttg cagatcaatg gccctcacat gccgccttcg cgttcccatt acgggctacc 14400

gaggaagaaa accgcgccgt agaaggctgg cggggaacgg gatgcgtcgc caccaccacc 14460

ggcggcggcg cgccatcagc aagcggttgg ggggaggctt cctgcccgcg ctgatcccca 14520

tcatcgccgc ggcgatcggg gcgatccccg gcattgcttc cgtggcggtg caggcctctc 14580

agcgccactg agacacactt ggaaacatct tgtaataaac caatggactc tgacgctcct 14640

ggtcctgtga tgtgttttcg tagacagatg gaagacatca atttttcgtc cctggctccg 14700

cgacacggca cgcggccgtt catgggcacc tggagcgaca tcggcaccag ccaactgaac 14760

gggggcgcct tcaattggag cagtctctgg agcgggctta agaatttcgg gtccacgctt 14820

aaaacctatg gcagcaaggc gtggaacagc accacagggc aggcgctgag ggataagctg 14880

aaagagcaga acttccagca gaaggtggtc gatgggctcg cctcgggcat caacggggtg 14940

gtggacctgg ccaaccaggc cgtgcagcgg cagatcaaca gccgcctgga cccggtgccg 15000

cccgccggct ccgtggagat gccgcaggtg gaggaggagc tgcctcccct ggacaagcgg 15060

ggcgagaagc gaccccgccc cgatgcggag gagacgctgc tgacgcacac ggacgagccg 15120

cccccgtacg aggaggcggt gaaactgggt ctgcccacca cgcggcccat cgcgcccctg 15180

gccaccgggg tgctgaaacc cgaaaagccc gcgaccctgg acttgcctcc tccccagcct 15240

tcccgccccc ctacagtggc taagcccctg ccgccggtgg ccgtggcccg cgcgcgaccc 15300

gggggcaccg cccgccctca tgcgaactgg cagagcactc tgaacagcat cgtgggtctg 15360

ggagtgcaga gtgtgaagcg ccgccgctgc tattaaacct accgtagcgc ttaacttgct 15420

tgtctgtgtg tgtatgtatt atgtcgccgc cgccgctgtc caccagaagg aggagtgaag 15480

aggcgcgtcg ccgagttgca agatggccac cccatcgatg ctgccccagt gggcgtacat 15540

gcacatcgcc ggacaggacg cttcggagta cctgagtccg ggtctggtgc agtttgcccg 15600

cgccacagac acctacttca gtctggggaa caagtttagg aaccccacgg tggcgcccac 15660

gcacgatgtg accaccgacc gcagccagcg gctgacgctg cgcttcgtgc ccgtggaccg 15720

cgaggacaac acctactcgt acaaagtgcg ctacacgctg gccgtgggcg acaaccgcgt 15780

gctggacatg gccagcacct actttgacat ccgcggcgtg ctggatcggg gccctagctt 15840

caaaccctac tccggcaccg cctacaacag tctggccccc aagggagcac ccaacacttg 15900

tcagtggaca tataaagccg atggtgaaac tgccacagaa aaaacctata catatggaaa 15960

tgcacccgtg cagggcatta acatcacaaa agatggtatt caacttggaa ctgacaccga 16020

tgatcagcca atctacgcag ataaaaccta tcagcctgaa cctcaagtgg gtgatgctga 16080

atggcatgac atcactggta ctgatgaaaa gtatggaggc agagctctta agcctgatac 16140

caaaatgaag ccttgttatg gttcttttgc caagcctact aataaagaag gaggtcaggc 16200

aaatgtgaaa acaggaacag gcactactaa agaatatgac atagacatgg ctttctttga 16260

caacagaagt gcggctgctg ctggcctagc tccagaaatt gttttgtata ctgaaaatgt 16320

ggatttggaa actccagata cccatattgt atacaaagca ggcacagatg acagcagctc 16380

ttctattaat ttgggtcagc aagccatgcc caacagacct aactacattg gtttcagaga 16440

caactttatc gggctcatgt actacaacag cactggcaat atgggggtgc tggccggtca 16500

ggcttctcag ctgaatgctg tggttgactt gcaagacaga aacaccgagc tgtcctacca 16560

gctcttgctt gactctctgg gtgacagaac ccggtatttc agtatgtgga atcaggcggt 16620

ggacagctat gatcctgatg tgcgcattat tgaaaatcat ggtgtggagg atgaacttcc 16680

caactattgt ttccctctgg atgctgttgg cagaacagat acttatcagg gaattaaggc 16740

taatggaact gatcaaacca catggaccaa agatgacagt gtcaatgatg ctaatgagat 16800

aggcaagggt aatccattcg ccatggaaat caacatccaa gccaacctgt ggaggaactt 16860

cctctacgcc aacgtggccc tgtacctgcc cgactcttac aagtacacgc cggccaatgt 16920

taccctgccc accaacacca acacctacga ttacatgaac ggccgggtgg tggcgccctc 16980

gctggtggac tcctacatca acatcggggc gcgctggtcg ctggatccca tggacaacgt 17040

gaaccccttc aaccaccacc gcaatgcggg gctgcgctac cgctccatgc tcctgggcaa 17100

cgggcgctac gtgcccttcc acatccaggt gccccagaaa tttttcgcca tcaagagcct 17160

cctgctcctg cccgggtcct acacctacga gtggaacttc cgcaaggacg tcaacatgat 17220

cctgcagagc tccctcggca acgacctgcg cacggacggg gcctccatct ccttcaccag 17280

catcaacctc tacgccacct tcttccccat ggcgcacaac acggcctcca cgctcgaggc 17340

catgctgcgc aacgacacca acgaccagtc cttcaacgac tacctctcgg cggccaacat 17400

gctctacccc atcccggcca acgccaccaa cgtgcccatc tccatccccc cgcgcaactg 17460

ggccgccttc cgcggctggt ccttcacgcg tctcaagacc aaggagacgc cctcgctggg 17520

ctccgggttc gacccctact tcgtctactc gggctccatc ccctacctcg acggcacctt 17580

ctacctcaac cacaccttca agaaggtctc catcaccttc gactcctccg tcagctggcc 17640

cggcaacgac cggctcctga cgcccaacga gttcgaaatc aagcgcaccg tcgacggcga 17700

gggctacaac gtggcccagt gcaacatgac caaggactgg ttcctggtcc agatgctggc 17760

ccactacaac atcggctacc agggcttcta cgtgcccgag ggctacaagg accgcatgta 17820

ctccttcttc cgcaacttcc agcccatgag ccgccaggtg gtggacgagg tcaactacaa 17880

ggactaccag gccgtcaccc tggcctacca gcacaacaac tcgggcttcg tcggctacct 17940

cgcgcccacc atgcgccagg gccagcccta ccccgccaac taccctacc cgctcatcgg 18000

caagagcgcc gtcaccagcg tcacccagaa aaagttcctc tgcgacaggg tcatgtggcg 18060

catccccttc tccagcaact tcatgtccat gggcgcgctc accgacctcg gccagaacat 18120

gctctatgcc aactccgccc acgcgctaga catgaatttc gaagtcgacc ccatggatga 18180

gtccaccctt ctctatgttg tcttcgaagt cttcgacgtc gtccgagtgc accagcccca 18240

ccgcggcgtc atcgaggccg tctacctgcg caccccccttc tcggccggta acgccaccac 18300

ctaagctctt gcttcttgca agccatggcc gcgggctccg gcgagcagga gctcagggcc 18360

atcatccgcg acctgggctg cgggccctac ttcctgggca ccttcgataa gcgcttcccg 18420

ggattcatgg ccccgcacaa gctggcctgc gccatcgtca acacggccgg ccgcgagacc 18480

gggggcgagc actggctggc cttcgcctgg aacccgcgct cgaacacctg ctacctcttc 18540

gacccccttcg ggttctcgga cgagcgcctc aagcagatct accagttcga gtacgagggc 18600

ctgctgcgcc gcagcgccct ggccaccgag gaccgctgcg tcaccctgga aaagtccacc 18660

cagaccgtgc agggtccgcg ctcggccgcc tgcgggctct tctgctgcat gttcctgcac 18720

gccttcgtgc actggcccga ccgccccatg gacaagaacc ccaccatgaa cttgctgacg 18780

ggggtgccca acggcatgct ccagtcgccc caggtggaac ccaccctgcg ccgcaaccag 18840

gaggcgctct accgcttcct caactcccac tccgcctact ttcgctccca ccgcgcgcgc 18900

atcgagaagg ccaccgcctt cgaccgcatg aatcaagaca tgtaaaccgt gtgtgtatgt 18960

taaatgtctt taataaacag cactttcatg ttacacatgc atctgagatg atttatttag 19020

aaatcgaaag ggttctgccg ggtctcggca tggcccgcgg gcagggacac gttgcggaac 19080

tggtacttgg ccagccactt gaactcgggg atcagcagtt tgggcagcgg ggtgtcgggg 19140

aaggagtcgg tccacagctt ccgcgtcagt tgcagggcgc ccagcaggtc gggcgcggag 19200

atcttgaaat cgcagttggg acccgcgttc tgcgcgcggg agttgcggta cacggggttg 19260

cagcactgga acaccatcag ggccgggtgc ttcacgctcg ccagcaccgt cgcgtcggtg 19320

atgctctcca cgtcgaggtc ctcggcgttg gccatcccga agggggtcat cttgcaggtc 19380

tgccttccca tggtgggcac gcacccgggc ttgtggttgc aatcgcagtg cagggggatc 19440

agcatcatct gggcctggtc ggcgttcatc cccgggtaca tggccttcat gaaagcctcc 19500

aattgcctga acgcctgctg ggccttggct ccctcggtga agaagacccc gcaggacttg 19560

ctagagaact ggttggtggc gcacccggcg tcgtgcacgc agcagcgcgc gtcgttgttg 19620

gccagctgca ccacgctgcg cccccagcgg ttctgggtga tcttggcccg gtcggggttc 19680

tccttcagcg cgcgctgccc gttctcgctc gccacatcca tctcgatcat gtgctccttc 19740

tggatcatgg tggtcccgtg caggcaccgc agcttgccct cggcctcggt gcacccgtgc 19800

agccacagcg cgcacccggt gcactcccag ttcttgtggg cgatctggga atgcgcgtgc 19860

acgaagccct gcaggaagcg gcccatcatg gtggtcaggg tcttgttgct agtgaaggtc 19920

agcggaatgc cgcggtgctc ctcgttgatg tacaggtggc agatgcggcg gtacacctcg 19980

ccctgctcgg gcatcagctg gaagttggct ttcaggtcgg tctccacgcg gtagcggtcc 20040

atcagcatag tcatgatttc catacccttc tcccaggccg agacgatggg caggctcata 20100

gggttcttca ccatcatctt agcgctagca gccgcggcca gggggtcgct ctcgtccagg 20160

gtctcaaagc tccgcttgcc gtccttctcg gtgatccgca ccgggggggta gctgaagccc 20220

acggccgcca gctcctcctc ggcctgtctt tcgtcctcgc tgtcctggct gacgtcctgc 20280

aggaccacat gcttggtctt gcggggtttc ttcttgggcg gcagcggcgg cggagatgtt 20340

ggagatggcg agggggagcg cgagttctcg ctcaccacta ctatctcttc ctcttcttgg 20400

tccgaggcca cgcggcggta ggtatgtctc ttcgggggca gaggcggagg cgacgggctc 20460

tcgccgccgc gacttggcgg atggctggca gagccccttc cgcgttcggg ggtgcgctcc 20520

cggcggcgct ctgactgact tcctccgcgg ccggccattg tgttctccta gggaggaaca 20580

acaagcatgg agactcagcc atcgccaacc tcgccatctg cccccaccgc cgacgagaag 20640

cagcagcagc agaatgaaag cttaaccgcc ccgccgccca gccccgccac ctccgacgcg 20700

gccgtcccag acatgcaaga gatggaggaa tccatcgaga ttgacctggg ctatgtgacg 20760

cccgcggagc acgaggagga gctggcagtg cgcttttcac aagaagagat acaccaagaa 20820

cagccagagc aggaagcaga gaatgagcag agtcaggctg ggctcgagca tgacggcgac 20880

tacctccacc tgagcggggg ggaggacgcg ctcatcaagc atctggcccg gcaggccacc 20940

atcgtcaagg atgcgctgct cgaccgcacc gaggtgcccc tcagcgtgga ggagctcagc 21000

cgcgcctacg agttgaacct cttctcgccg cgcgtgcccc ccaagcgcca gcccaatggc 21060

acctgcgagc ccaacccgcg cctcaacttc tacccggtct tcgcggtgcc cgaggccctg 21120

gccacctacc acatcttttt caagaaccaa aagatccccg tctcctgccg cgccaaccgc 21180

acccgcgccg acgccctttt caacctgggt cccggcgccc gcctacctga tatcgcctcc 21240

ttggaagagg ttcccaagat cttcgagggt ctgggcagcg acgagactcg ggccgcgaac 21300

gctctgcaag gagaaggagg agagcatgag caccacagcg ccctggtcga gttggaaggc 21360

gacaacgcgc ggctggcggt gctcaaacgc acggtcgagc tgacccattt cgcctacccg 21420

gctctgaacc tgccccccaa agtcatgagc gcggtcatgg accaggtgct catcaagcgc 21480

gcgtcgccca tctccgagga cgagggcatg caagactccg aggagggcaa gcccgtggtc 21540

agcgacgagc agctggcccg gtggctgggt cctaatgcta gtccccagag tttggaagag 21600

cggcgcaaac tcatgatggc cgtggtcctg gtgaccgtgg agctggagtg cctgcgccgc 21660

ttcttcgccg acgcggagac cctgcgcaag gtcgaggaga acctgcacta cctcttcagg 21720

cacgggttcg tgcgccaggc ctgcaagatc tccaacgtgg agctgaccaa cctggtctcc 21780

tacatgggca tcttgcacga gaaccgcctg gggcagaacg tgctgcacac caccctgcgc 21840

ggggaggccc ggcgcgacta catccgcgac tgcgtctacc tctacctctg ccacacctgg 21900

cagacgggca tgggcgtgtg gcagcagtgt ctggaggagc agaacctgaa agagctctgc 21960

aagctcctgc agaagaacct caagggtctg tggaccgggt tcgacgagcg caccaccgcc 22020

tcggacctgg ccgacctcat tttccccgag cgcctcaggc tgacgctgcg caacggcctg 22080

cccgacttta tgagccaaag catgttgcaa aactttcgct ctttcatcct cgaacgctcc 22140

ggaatcctgc ccgccacctg ctccgcgctg ccctcggact tcgtgccgct gaccttccgc 22200

gagtgccccc cgccgctgtg gagccactgc tacctgctgc gcctggccaa ctacctggcc 22260

taccactcgg acgtgatcga ggacgtcagc ggcgagggcc tgctcgagtg ccactgccgc 22320

tgcaacctct gcacgccgca ccgctccctg gcctgcaacc cccagctgct gagcgagacc 22380

cagatcatcg gcaccttcga gttgcaaggg cccagcgaag gcgagggttc agccgccaag 22440

gggggtctga aactcacccc ggggctgtgg acctcggcct acttgcgcaa gttcgtgccc 22500

gaggactacc atcccttcga gatcaggttc tacgaggacc aatcccatcc gcccaaggcc 22560

gagctgtcgg cctgcgtcat cacccagggg gcgatcctgg cccaattgca agccatccag 22620

aaatcccgcc aagaattctt gctgaaaaag ggccgcgggg tctacctcga cccccagacc 22680

ggtgaggagc tcaaccccgg cttcccccag gatgccccga ggaaacaaga agctgaaagt 22740

ggagctgccg cccgtggagg atttggagga agactgggag aacagcagtc aggcagagga 22800

ggaggagatg gaggaagact gggacagcac tcaggcagag gaggacagcc tgcaagacag 22860

tctggaggaa gacgaggagg aggcagagga ggaggtggaa gaagcagccg ccgccagacc 22920

gtcgtcctcg gcgggggaga aagcaagcag cacggatacc atctccgctc cgggtcgggg 22980

tcccgctcga ccacacagta gatgggacga gaccggacga ttcccgaacc ccaccaccca 23040

gaccggtaag aaggagcggc agggatacaa gtcctggcgg gggcacaaaa acgccatcgt 23100

ctcctgcttg caggcctgcg ggggcaacat ctccttcacc cggcgctacc tgctcttcca 23160

ccgcggggtg aactttcccc gcaacatctt gcattactac cgtcacctcc acagccccta 23220

ctacttccaa gaagaggcag cagcagcaga aaaagaccag cagaaaacca gcagctagaa 23280

aatccacagc ggcggcagca ggtggactga ggatcgcggc gaacgagccg gcgcaaaccc 23340

gggagctgag gaaccggatc tttcccaccc tctatgccat cttccagcag agtcgggggc 23400

aggagcagga actgaaagtc aagaaccgtt ctctgcgctc gctcacccgc agttgtctgt 23460

atcacaagag cgaagaccaa cttcagcgca ctctcgagga cgccgaggct ctcttcaaca 23520

agtactgcgc gctcactctt aaagagtagc ccgcgcccgc ccagtcgcag aaaaaggcgg 23580

gaattacgtc acctgtgccc ttcgccctag ccgcctccac ccatcatcat gagcaaagag 23640

attcccacgc cttacatgtg gagctaccag ccccagatgg gcctggccgc cggtgccgcc 23700

caggactact ccacccgcat gaattggctc agcgccgggc ccgcgatgat ctcacgggtg 23760

aatgacatcc gcgcccaccg aaaccagata ctcctagaac agtcagcgct caccgccacg 23820

ccccgcaatc acctcaatcc gcgtaattgg cccgccgccc tggtgtacca ggaaattccc 23880

cagcccacga ccgtactact tccgcgagac gcccaggccg aagtccagct gactaactca 23940

ggtgtccagc tggcgggcgg cgccaccctg tgtcgtcacc gccccgctca gggtataaag 24000

cggctggtga tccggggcag aggcacacag ctcaacgacg aggtggtgag ctcttcgctg 24060

ggtctgcgac ctgacggagt cttccaactc gccggatcgg ggagatcttc cttcacgcct 24120

cgtcaggccg tcctgacttt ggagagttcg tcctcgcagc cccgctcggg tggcatcggc 24180

actctccagt tcgtggagga gttcactccc tcggtctact tcaacccctt ctccggctcc 24240

cccggccact acccggacga gttcatcccg aacttcgacg ccatcagcga gtcggtggac 24300

ggctacgatt gaaactaatc acccccttat ccagtgaaat aaagatcata ttgatgatga 24360

ttttacagaa ataaaaaata atcatttgat ttgaaataaa gatacaatca tattgatgat 24420

ttgagtttaa caaaaaaata aagaatcact tacttgaaat ctgataccag gtctctgtcc 24480

atgttttctg ccaacaccac ttcactcccc tcttcccagc tctggtactg caggccccgg 24540

cgggctgcaa acttcctcca cacgctgaag gggatgtcaa attcctcctg tccctcaatc 24600

ttcattttat cttctatcag atgtccaaaa agcgcgtccg ggtggatgat gacttcgacc 24660

ccgtctaccc ctacgatgca gacaacgcac cgaccgtgcc cttcatcaac ccccccttcg 24720

tctcttcaga tggattccaa gagaagcccc tgggggtgtt gtccctgcga ctggccgacc 24780

ccgtcaccac caagaacggg gaaatcaccc tcaagctggg agagggggtg gacctcgatt 24840

cctcgggaaa actcatctcc aacacggcca ccaaggccgc cgcccctctc agtttttcca 24900

acaacaccat ttcccttaac atggatcacc ccttttacac taaagatgga aaattatcct 24960

tacaagtttc tccaccatta aatatactga gaacaagcat tctaaacaca ctagctttag 25020

gttttggatc aggtttagga ctccgtggct ctgccttggc agtacagtta gtctctccac 25080

ttacatttga tactgatgga aacataaagc ttaccttaga cagaggtttg catgttacaa 25140

caggagatgc aattgaaagc aacataagct gggctaaagg tttaaaattt gaagatggag 25200

ccatagcaac caacattgga aatgggttag agtttggaag cagtagtaca gaaacaggtg 25260

ttgatgatgc ttacccaatc caagttaaac ttggatctgg ccttagcttt gacagtacag 25320

gagccataat ggctggtaac aaagaagacg ataaactcac tttgtggaca acacctgatc 25380

catcaccaaa ctgtcaaata ctcgcagaaa atgatgcaaa actaacactt tgcttgacta 25440

aatgtggtag tcaaatactg gccactgtgt cagtcttagt tgtaggaagt ggaaacctaa 25500

accccattac tggcaccgta agcagtgctc aggtgtttct acgttttgat gcaaacggtg 25560

ttcttttaac agaacattct acactaaaaa aatactgggg gtataggcag ggagatagca 25620

tagatggcac tccatatacc aatgctgtag gattcatgcc caatttaaaa gcttatccaa 25680

agtcacaaag ttctactact aaaaataata tagtagggca agtatacatg aatggagatg 25740

tttcaaaacc tatgcttctc actataaccc tcaatggtac tgatgacagc aacagtacat 25800

attcaatgtc attttcatac acctggacta atggaagcta tgttggagca acatttgggg 25860

ctaactctta taccttctca tacatcgccc aagaatgaac actgtatccc accctgcatg 25920

ccaacccttc ccaccccact ctgtggaaca aactctgaaa cacaaaataa aataaagttc 25980

aagtgtttta ttgattcaac agttttacag gattcgagca gttatttttc ctccaccctc 26040

ccaggacatg gaatacacca ccctctcccc ccgcacagcc ttgaacatct gaatgccatt 26100

ggtgatggac atgcttttgg tctccacgtt ccacacagtt tcagagcgag ccagtctcgg 26160

gtcggtcagg gagatgaaac cctccgggca ctcccgcatc tgcacctcac agctcaacag 26220

ctgaggattg tcctcggtgg tcgggatcac ggttatctgg aagaagcaga agagcggcgg 26280

tgggaatcat agtccgcgaa cgggatcggc cggtggtgtc gcatcaggcc ccgcagcagt 26340

cgctgccgcc gccgctccgt caagctgctg ctcaggggggt ccgggtccag ggactccctc 26400

agcatgatgc ccacggccct cagcatcagt cgtctggtgc ggcgggcgca gcagcgcatg 26460

cggatctcgc tcaggtcgct gcagtacgtg caacacagaa ccaccaggtt gttcaacagt 26520

ccatagttca acacgctcca gccgaaactc atcgcgggaa ggatgctacc cacgtggccg 26580

tcgtaccaga tcctcaggta aatcaagtgg tgccccctcc agaacacgct gcccacgtac 26640

atgatctcct tgggcatgtg gcggttcacc acctcccggt accacatcac cctctggttg 26700

aacatgcagc cccggatgat cctgcggaac cacagggcca gcaccgcccc gcccgccatg 26760

cagcgaagag accccgggtc ccggcaatgg caatggagga cccaccgctc gtacccgtgg 26820

atcatctggg agctgaacaa gtctatgttg gcacagcaca ggcatatgct catgcatctc 26880

ttcagcactc tcaactcctc gggggtcaaa accatatccc agggcacggg gaactcttgc 26940

aggacagcga accccgcaga acagggcaat cctcgcacag aacttacatt gtgcatggac 27000

agggtatcgc aatcaggcag caccgggtga tcctccacca gagaagcgcg ggtctcggtc 27060

tcctcacagc gtggtaaggg ggccggccga tacgggtgat ggcgggacgc ggctgatcgt 27120

gttcgcgacc gtgtcatgat gcagttgctt tcggacattt tcgtacttgc tgtagcagaa 27180

cctggtccgg gcgctgcaca ccgatcgccg gcggcggtct cggcgcttgg aacgctcggt 27240

gttgaaattg taaaacagcc actctctcag accgtgcagc agatctaggg cctcaggagt 27300

gatgaagatc ccatcatgcc tgatggctct gatcacatcg accaccgtgg aatgggccag 27360

acccagccag atgatgcaat tttgttgggt ttcggtgacg gcgagcctcg ggaacaacga 27420

tgaagtaaat gcaagcggtg cgttccagca tggttagtta gctgatctgt agaaaaaaca 27480

aaaatgaaca ttaaaccatg ctagcctggc gaacaggtgg gtaaatcgtt ctctccagca 27540

ccaggcaggc cacggggtct ccggcgcgac cctcgtaaaa attgtcgcta tgattgaaaa 27600

ccatcacaga gagacgttcc cggtggccgg cgtgaatgat tcgacaagat gaatacaccc 27660

ccggaacatt ggcgtccgcg agtgaaaaaa agcgcccgag gaagcaataa ggcactacaa 27720

tgctcagtct caagtccagc aaagcgatgc catgcggatg aagcacaaaa ttctcaggtg 27780

cgtacaaaat gtaattactc ccctcctgca caggcagcaa agcccccgat ccctccaggt 27840

acacatacaa agcctcagcg tccatagctt accgagcagc agcacacaac aggcgcaaga 27900

gtcagagaaa ggctgagctc taacctgtcc acccgctctc tgctcaatat atagcccaga 27960

tctacactga cgtaaaggcc aaagtctaaa aatacccgcc aaataatcac acacgcccag 28020

cacacgccca gaaaccggtg acacactcaa aaaaatacgc gcacttcctc aaacgcccaa 28080

aactgccgtc atttccgggt tcccacgcta cgtcatcaaa acacgacttt caaattccgt 28140

cgaccgttaa aaacgtcacc cgccccgccc ctaacggtcg cccgtctctc agccaatcag 28200

cgccccgcat ccccaaattc aaacacctca tttgcatatt aacgcgcaca aaaagtttga 28260

ggtatattat tgatgatg 28278

<210> 60
<211> 19
<212> DNA
<213> Artificial Sequence

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

<400> 60
tccctatcag tgatagaga 19

<210> 61
<211> 410
<212> DNA
<213> Artificial Sequence

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

<400> 61
ccatgttgac attgattatt gactagttat taaagtactt ccctatcagt gatagagaaa 60

agtgaaagtc gagtttacca ctccctatca gtgatagaga aaagtgaaag tcgagtttac 120

cactccctat cagtgataga gaaaagtgaa agtcgagttt accactccct atcagtgata 180

gagaaaagtg aaagtcgagt ttaccactcc ctatcagtga tagagaaaag tgaaagtcga 240

gtttaccact ccctatcagt gatagagaaa agtgaaagtc gagtttacca ctccctatca 300

gtgatagaga aaagtgaaag tcgagctcgg tacccgggtc gaggtaggcg tgtacggtgg 360

gaggcctata taagcagagc tcgtttagtg aaccgtcaga tcgcctggag 410

<210> 62
<211> 849
<212> DNA
<213> Artificial Sequence

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

<400> 62

atgagcagac tggacaagag caaagtgatc aacagcgccc tggaactgct gaacgaagtg 60

ggcatcgagg gcctgacaac cagaaagctg gcccagaagc tgggcgttga gcagcctaca 120

ctgtattggc acgtgcggaa caagcagacc ctgatgaata tgctgagcga ggccatcctg 180

gccaagcacc atacaagatc tgcccctctg ccaaccgaga gctggcagca gtttctgcaa 240

gagaacgccc tgagcttcag aaaggccctg ctggtgcata gagatggcgc cagactgcac 300

atcggcacat ctcccacacc tccacagttt gagcaggctg aggcacagct gagatgtctg 360

tgtgatgccg gctttagcgt ggaagaggcc ctgttcatcc tgcagtccat cagccacttt 420

acactgggcg ccgtgctgga agaacaggcc accaaccaga tcgagaacaa ccacgtgatc 480

gacgctgccc ctccactgct gcaagaggcc ttcaatatcc aagccagaac cagcgccgag 540

atggccttcc actttggcct gaagtccctg atctttggct tcagcgccca gctggacgag 600

aagaagcaca cacctatcga ggacggcaac aagcccaaga agaagcggaa gctggccgtc 660

agcgtgacct ttgaagatgt ggccgtgctg ttcacccggg acgagtggaa gaaactggac 720

ctgagccagc ggagcctgta ccgggaagtg atgctggaaa actacagcaa cctggcctcc 780

atggccggct ttctgttcac caagcctaaa gtgatctccc tgcttcagca gggcgaagat 840

ccttggtaa 849

<210> 63
<211> 282
<212> PRT
<213> Artificial Sequence

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

<400> 63
Met Ser Arg Leu Asp Lys Ser Lys Val Ile Asn Ser Ala Leu Glu Leu
1 5 10 15

Leu Asn Glu Val Gly Ile Glu Gly Leu Thr Thr Arg Lys Leu Ala Gln
20 25 30

Lys Leu Gly Val Glu Gln Pro Thr Leu Tyr Trp His Val Arg Asn Lys
35 40 45

Gln Thr Leu Met Asn Met Leu Ser Glu Ala Ile Leu Ala Lys His His
50 55 60

```
Thr Arg Ser Ala Pro Leu Pro Thr Glu Ser Trp Gln Gln Phe Leu Gln
65                  70                  75                  80

Glu Asn Ala Leu Ser Phe Arg Lys Ala Leu Leu Val His Arg Asp Gly
                85                  90                  95

Ala Arg Leu His Ile Gly Thr Ser Pro Thr Pro Pro Gln Phe Glu Gln
            100                 105                 110

Ala Glu Ala Gln Leu Arg Cys Leu Cys Asp Ala Gly Phe Ser Val Glu
        115                 120                 125

Glu Ala Leu Phe Ile Leu Gln Ser Ile Ser His Phe Thr Leu Gly Ala
    130                 135                 140

Val Leu Glu Glu Gln Ala Thr Asn Gln Ile Glu Asn Asn His Val Ile
145                 150                 155                 160

Asp Ala Ala Pro Pro Leu Leu Gln Glu Ala Phe Asn Ile Gln Ala Arg
                165                 170                 175

Thr Ser Ala Glu Met Ala Phe His Phe Gly Leu Lys Ser Leu Ile Phe
            180                 185                 190

Gly Phe Ser Ala Gln Leu Asp Glu Lys Lys His Thr Pro Ile Glu Asp
        195                 200                 205

Gly Asn Lys Pro Lys Lys Lys Arg Lys Leu Ala Val Ser Val Thr Phe
    210                 215                 220

Glu Asp Val Ala Val Leu Phe Thr Arg Asp Glu Trp Lys Lys Leu Asp
225                 230                 235                 240

Leu Ser Gln Arg Ser Leu Tyr Arg Glu Val Met Leu Glu Asn Tyr Ser
                245                 250                 255

Asn Leu Ala Ser Met Ala Gly Phe Leu Phe Thr Lys Pro Lys Val Ile
            260                 265                 270

Ser Leu Leu Gln Gln Gly Glu Asp Pro Trp
        275                 280
```

<210> 64

<211> 627
<212> DNA
<213> Artificial Sequence

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

<400> 64
gacattgatt attgactagt tgttaatagt aatcaattac ggggtcatta gttcatagcc 60

catatatgga gttccgcgtt acataactta cggtaaatgg cccgcctggc tgaccgccca 120

acgacccccg cccattgacg tcaataatga cgtatgttcc catagtaacg ccaataggga 180

ctttccattg acgtcaatgg gtggagtatt tacggtaaac tgcccacttg gcagtacatc 240

aagtgtatca tatgccaagt ccgcccccta ttgacgtcaa tgacggtaaa tggcccgcct 300

ggcattatgc ccagtacatg accttacggg actttcctac ttggcagtac atctacgtat 360

tagtcatcgc tattaccatg gtgatgcggt tttggcagta caccaatggg cgtggatagc 420

ggtttgactc acggggattt ccaagtctcc accccattga cgtcaatggg agtttgtttt 480

ggcaccaaaa tcaacgggac tttccaaaat gtcgtaataa ccccgccccg ttgacgcaaa 540

tgggcggtag gcgtgtacgg tgggaggtct atataagcag agctctccct atcagtgata 600

gagatctccc tatcagtgat agagatc 627

<210> 65
<211> 31402
<212> DNA
<213> Artificial Sequence

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

<400> 65
catcatcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatccatgtt 600

gacattgatt attgactagt tattaaagta cttccctatc agtgatagag aaaagtgaaa 660

gtcgagttta ccactcccta tcagtgatag agaaaagtga aagtcgagtt taccactccc 720

tatcagtgat agagaaaagt gaaagtcgag tttaccactc cctatcagtg atagagaaaa 780

gtgaaagtcg agtttaccac tccctatcag tgatagagaa aagtgaaagt cgagtttacc 840

actccctatc agtgatagag aaaagtgaaa gtcgagttta ccactcccta tcagtgatag 900

agaaaagtga aagtcgagct cggtacccgg gtcgaggtag gcgtgtacgg tgggaggcct 960

atataagcag agctcgttta gtgaaccgtc agatcgcctg gagacgccat ccacgctgtt 1020

ttgacctcca tagaagacag cgatcgcgcc accatggccg ggatgttcca ggcactgtcc 1080

gaaggctgca caccctatga tattaaccag atgctgaatg tcctgggaga ccaccaggtc 1140

tctggcctgg agcagctgga gagcatcatc aacttcgaga agctgaccga gtggacaagc 1200

tccaatgtga tgcctatcct gtccccactg accaagggca tcctgggctt cgtgtttacc 1260

ctgacagtgc cttctgagcg gggcctgtct tgcatcagcg aggcagacgc aaccacacca 1320

gagtccgcca atctgggcga ggagatcctg tctcagctgt acctgtggcc ccgggtgaca 1380

tatcactccc cttcttacgc ctatcaccag ttcgagcgga gagccaagta caagagacac 1440

ttcccaggct ttggccagtc tctgctgttc ggctaccccg tgtacgtgtt cggcgattgc 1500

gtgcagggcg actgggatgc catccggttt agatactgcg caccacctgg atatgcactg 1560

ctgaggtgta acgacaccaa ttattccgcc ctgctggcag tgggcgccct ggagggccct 1620

cgcaatcagg attggctggg cgtgccaagg cagctggtga cacgcatgca ggccatccag 1680

aacgcaggcc tgtgcaccct ggtggcaatg ctggaggaga caatcttctg gctgcaggcc 1740

tttctgatgg ccctgaccga cagcggcccc aagacaaaca tcatcgtgga ttcccagtac 1800

gtgatgggca tctccaagcc ttctttccag gagtttgtgg actgggagaa cgtgagccca 1860

gagctgaatt ccaccgatca gccattctgg caggcaggaa tcctggcaag gaacctggtg 1920

cctatggtgg ccacagtgca gggccagaat ctgaagtacc agggccagag cctggtcatc 1980

agcgcctcca tcatcgtgtt taacctgctg gagctggagg gcgactatcg ggacgatggc 2040

aacgtgtggg tgcacacccc actgagcccc agaacactga acgcctgggt gaaggccgtg 2100

gaggagaaga agggcatccc agtgcacctg gagctggcct ccatgaccaa tatggagctg 2160

atgtctagca tcgtgcacca gcaggtgagg acatacggac ccgtgttcat gtgcctggga 2220

ggcctgctga ccatggtggc aggagccgtg tggctgacag tgcgggtgct ggagctgttc 2280

agagccgccc agctggccaa cgatgtggtg ctgcagatca tggagctgtg cggagcagcc 2340

tttcgccagg tgtgccacac cacagtgcca tggcccaatg cctccctgac ccccaagtgg 2400

aacaatgaga caacacagcc tcagatcgcc aactgtagcg tgtacgactt cttcgtgtgg 2460

ctgcactact atagcgtgag ggataccctg tggccccgcg tgacatacca catgaataag 2520

tacgcctatc acatgctgga gaggcgcgcc aagtataaga gaggccctgg cccaggcgca 2580

aagtttgtgg cagcatggac cctgaaggcc gccgccggcc ccggccccgg ccagtatatc 2640

aaggctaaca gtaagttcat tggaatcaca gagctgggac ccggacctgg ataatgagtt 2700

taaactccca tttaaatgtg agggttaatg cttcgagcag acatgataag atacattgat 2760

gagtttggac aaaccacaac tagaatgcag tgaaaaaaat gctttatttg tgaaatttgt 2820

gatgctattg ctttatttgt aaccattata agctgcaata aacaagttaa caacaacaat 2880

tgcattcatt ttatgtttca ggttcagggg gagatgtggg aggtttttta aagcaagtaa 2940

aacctctaca aatgtggtaa aataactata acggtcctaa ggtagcgagt gagtagtgtt 3000

ctggggcggg ggaggacctg catgagggcc agaataactg aaatctgtgc ttttctgtgt 3060

gttgcagcag catgagcgga agcggctcct ttgagggagg ggtattcagc ccttatctga 3120

cggggcgtct cccctcctgg gcgggagtgc gtcagaatgt gatgggatcc acggtggacg 3180

gccggcccgt gcagcccgcg aactcttcaa ccctgaccta tgcaaccctg agctcttcgt 3240

cgttggacgc agctgccgcc gcagctgctg catctgccgc cagcgccgtg cgcggaatgg 3300

ccatgggcgc cggctactac ggcactctgg tggccaactc gagttccacc aataatcccg 3360

ccagcctgaa cgaggagaag ctgttgctgc tgatggccca gctcgaggcc ttgacccagc 3420

gcctgggcga gctgacccag caggtggctc agctgcagga gcagacgcgg gccgcggttg 3480

ccacggtgaa atccaaataa aaaatgaatc aataaataaa cggagacggt tgttgatttt 3540

aacacagagt ctgaatcttt atttgatttt tcgcgcgcgg taggccctgg accaccggtc 3600

tcgatcattg agcacccggt ggatcttttc caggacccgg tagaggtggg cttggatgtt 3660

gaggtacatg ggcatgagcc cgtcccgggg gtggaggtag ctccattgca gggcctcgtg 3720

ctcgggggtg gtgttgtaaa tcacccagtc atagcagggg cgcagggcat ggtgttgcac 3780

aatatctttg aggaggagac tgatggccac gggcagccct ttggtgtagg tgtttacaaa 3840

tctgttgagc tgggagggat gcatgcgggg ggagatgagg tgcatcttgg cctggatctt 3900

gagattggcg atgttaccgc ccagatcccg cctggggttc atgttgtgca ggaccaccag 3960

cacggtgtat ccggtgcact tggggaattt atcatgcaac ttggaaggga aggcgtgaaa 4020

gaatttggcg acgcctttgt gcccgcccag gttttccatg cactcatcca tgatgatggc 4080

gatgggcccg tgggcggcgg cctgggcaaa gacgtttcgg gggtcggaca catcatagtt 4140

gtggtcctgg gtgaggtcat cataggccat tttaatgaat ttggggcgga gggtgccgga 4200

ctgggggaca aaggtaccct cgatcccggg ggcgtagttc ccctcacaga tctgcatctc 4260

ccaggctttg agctcggagg gggggatcat gtccacctgc ggggcgataa agaacacggt 4320

ttccggggcg ggggagatga gctgggccga aagcaagttc cggagcagct gggacttgcc 4380

gcagccggtg gggccgtaga tgaccccgat gaccggctgc aggtggtagt tgagggagag 4440

acagctgccg tcctcccgga ggaggggggc cacctcgttc atcatctcgc gcacgtgcat 4500

gttctcgcgc accagttccg ccaggaggcg ctctcccccc agggatagga gctcctggag 4560

cgaggcgaag tttttcagcg gcttgagtcc gtcggccatg ggcattttgg agagggtttg 4620

ttgcaagagt tccaggcggt cccagagctc ggtgatgtgc tctacggcat ctcgatccag 4680

cagacctcct cgtttcgcgg gttgggacgg ctgcgggagt agggcaccag acgatgggcg 4740

tccagcgcag ccagggtccg gtccttccag ggtcgcagcg tccgcgtcag ggtggtctcc 4800

gtcacggtga aggggtgcgc gccgggctgg gcgcttgcga gggtgcgctt caggctcatc 4860

cggctggtcg aaaaccgctc ccgatcggcg ccctgcgcgt cggccaggta gcaattgacc 4920

atgagttcgt agttgagcgc ctcggccgcg tggcctttgg cgcggagctt acctttggaa 4980

gtctgcccgc aggcgggaca gaggagggac ttgagggcgt agagcttggg ggcgaggaag 5040

acggactcgg gggcgtaggc gtccgcgccg cagtgggcgc agacggtctc gcactccacg 5100

agccaggtga ggtcgggctg gtcggggtca aaaaccagtt tcccgccgtt ctttttgatg 5160

cgtttcttac ctttggtctc catgagctcg tgtccccgct gggtgacaaa gaggctgtcc 5220

gtgtccccgt agaccgactt tatgggccgg tcctcgagcg gtgtgccgcg gtcctcctcg 5280

tagaggaacc ccgcccactc cgagacgaaa gcccgggtcc aggccagcac gaaggaggcc 5340

acgtgggacg ggtagcggtc gttgtccacc agcgggtcca ccttttccag ggtatgcaaa 5400

cacatgtccc cctcgtccac atccaggaag gtgattggct tgtaagtgta ggccacgtga 5460

ccgggggtcc cggccggggg ggtataaaag ggtgcgggtc cctgctcgtc ctcactgtct 5520

tccggatcgc tgtccaggag cgccagctgt tggggtaggt attccctctc gaaggcgggc 5580

atgacctcgg cactcaggtt gtcagtttct agaaacgagg aggatttgat attgacggtg 5640

ccggcggaga tgcctttcaa gagcccctcg tccatctggt cagaaaagac gatcttttg 5700

ttgtcgagct tggtggcgaa ggagccgtag agggcgttgg agaggagctt ggcgatggag 5760

cgcatggtct ggtttttttc cttgtcggcg cgctccttgg cggcgatgtt gagctgcacg 5820

tactcgcgcg ccacgcactt ccattcgggg aagacggtgg tcagctcgtc gggcacgatt 5880

ctgacctgcc agccccgatt atgcagggtg atgaggtcca cactggtggc cacctcgccg 5940

cgcaggggct cattagtcca gcagaggcgt ccgcccttgc gcgagcagaa ggggggcagg 6000

gggtccagca tgacctcgtc gggggggtcg gcatcgatgg tgaagatgcc gggcaggagg 6060

tcggggtcaa agtagctgat ggaagtggcc agatcgtcca gggcagcttg ccattcgcgc 6120

acggccagcg cgcgctcgta gggactgagg ggcgtgcccc agggcatggg atgggtaagc 6180

gcggaggcgt acatgccgca gatgtcgtag acgtagaggg gctcctcgag gatgccgatg 6240

taggtggggt agcagcgccc cccgcggatg ctggcgcgca cgtagtcata cagctcgtgc 6300

gagggggcga ggagccccgg gcccaggttg gtgcgactgg gcttttcggc gcggtagacg 6360

atctggcgga aaatggcatg cgagttggag gagatggtgg gcctttggaa gatgttgaag 6420

tgggcgtggg gcagtccgac cgagtcgcgg atgaagtggg cgtaggagtc ttgcagcttg 6480

gcgacgagct cggcggtgac taggacgtcc agagcgcagt agtcgagggt ctcctggatg 6540

atgtcatact tgagctgtcc cttttgtttc cacagctcgc ggttgagaag gaactcttcg 6600

cggtccttcc agtactcttc gaggggggaac ccgtcctgat ctgcacggta agagcctagc 6660

atgtagaact ggttgacggc cttgtaggcg cagcagccct tctccacggg gagggcgtag 6720

gcctgggcgg ccttgcgcag ggaggtgtgc gtgagggcga aagtgtccct gaccatgacc 6780

ttgaggaact ggtgcttgaa gtcgatatcg tcgcagcccc cctgctccca gagctggaag 6840

tccgtgcgct tcttgtaggc ggggttgggc aaagcgaaag taacatcgtt gaagaggatc 6900

ttgcccgcgc ggggcataaa gttgcgagtg atgcggaaag gttggggcac ctcggcccgg 6960

ttgttgatga cctgggcggc gagcacgatc tcgtcgaagc cgttgatgtt gtggcccacg 7020

atgtagagtt ccacgaatcg cggacggccc ttgacgtggg gcagtttctt gagctcctcg 7080

taggtgagct cgtcggggtc gctgagcccg tgctgctcga gcgcccagtc ggcgagatgg 7140

gggttggcgc ggaggaagga agtccagaga tccacggcca gggcggtttg cagacggtcc 7200

cggtactgac ggaactgctg cccgacggcc atttttttcgg gggtgacgca gtagaaggtg 7260

cgggggtccc cgtgccagcg atcccatttg agctggaggg cgagatcgag ggcgagctcg 7320

acgagccggt cgtccccgga gagtttcatg accagcatga aggggacgag ctgcttgccg 7380

aaggacccca tccaggtgta ggtttccaca tcgtaggtga ggaagagcct ttcggtgcga 7440

ggatgcgagc cgatggggaa gaactggatc tcctgccacc aattggagga atggctgttg 7500

atgtgatgga agtagaaatg ccgacggcgc gccgaacact cgtgcttgtg tttatacaag 7560

cggccacagt gctcgcaacg ctgcacggga tgcacgtgct gcacgagctg tacctgagtt 7620

cctttgacga ggaatttcag tgggaagtgg agtcgtggcg cctgcatctc gtgctgtact 7680

acgtcgtggt ggtcggcctg gccctcttct gcctcgatgg tggtcatgct gacgagcccg 7740

cgcgggaggc aggtccagac ctcggcgcga gcgggtcgga gagcgaggac gagggcgcgc 7800

aggccggagc tgtccagggt cctgagacgc tgcggagtca ggtcagtggg cagcggcggc 7860

gcgcggttga cttgcaggag tttttccagg gcgcgcggga ggtccagatg gtacttgatc 7920

tccaccgcgc cattggtggc gacgtcgatg gcttgcaggg tcccgtgccc ctggggtgtg 7980

accaccgtcc cccgtttctt cttgggcggc tggggcgacg ggggcggtgc ctcttccatg 8040

gttagaagcg gcggcgagga cgcgcgccgg gcggcagggg cggctcgggg cccggaggca 8100

ggggcggcag gggcacgtcg gcgccgcgcg cgggtaggtt ctggtactgc gcccggagaa 8160

gactggcgtg agcgacgacg cgacggttga cgtcctggat ctgacgcctc tgggtgaagg 8220

ccacgggacc cgtgagtttg aacctgaaag agagttcgac agaatcaatc tcggtatcgt 8280

tgacggcggc ctgccgcagg atctcttgca cgtcgcccga gttgtcctgg taggcgatct 8340

cggtcatgaa ctgctcgatc tcctcctctt gaaggtctcc gcggccggcg cgctccacgg 8400

tggccgcgag gtcgttggag atgcggccca tgagctgcga gaaggcgttc atgcccgcct 8460

cgttccagac gcggctgtag accacgacgc cctcgggatc gcgggcgcgc atgaccacct 8520

gggcgaggtt gagctccacg tggcgcgtga agaccgcgta gttgcagagg cgctggtaga 8580

ggtagttgag cgtggtggcg atgtgctcgg tgacgaagaa atacatgatc cagcggcgga 8640

gcggcatctc gctgacgtcg cccagcgcct ccaaacgttc catggcctcg taaaagtcca 8700

cggcgaagtt gaaaaactgg gagttgcgcg ccgagacggt caactcctcc tccagaagac 8760

ggatgagctc ggcgatggtg gcgcgcacct cgcgctcgaa ggcccccggg agttcctcca 8820

cttcctcttc ttcctcctcc actaacatct cttctacttc ctcctcaggc ggcagtggtg 8880

gcgggggagg gggcctgcgt cgccggcggc gcacgggcag acggtcgatg aagcgctcga 8940

tggtctcgcc gcgccggcgt cgcatggtct cggtgacggc gcgcccgtcc tcgcggggcc 9000

gcagcgtgaa gacgccgccg cgcatctcca ggtggccggg ggggtccccg ttgggcaggg 9060

agagggcgct gacgatgcat cttatcaatt gccccgtagg gactccgcgc aaggacctga 9120

gcgtctcgag atccacggga tctgaaaacc gctgaacgaa ggcttcgagc cagtcgcagt 9180

cgcaaggtag gctgagcacg gtttcttctg gcgggtcatg ttggttggga gcggggcggg 9240

cgatgctgct ggtgatgaag ttgaaatagg cggttctgag acggcggatg gtggcgagga 9300

gcaccaggtc tttgggcccg gcttgctgga tgcgcagacg gtcggccatg ccccaggcgt 9360

ggtcctgaca cctggccagg tccttgtagt agtcctgcat gagccgctcc acgggcacct 9420

cctcctcgcc cgcgcggccg tgcatgcgcg tgagcccgaa gccgcgctgg ggctggacga 9480

gcgccaggtc ggcgacgacg cgctcggcga ggatggcttg ctggatctgg gtgagggtgg 9540

tctggaagtc atcaaagtcg acgaagcggt ggtaggctcc ggtgttgatg gtgtaggagc 9600

agttggccat gacggaccag ttgacggtct ggtggcccgg acgcacgagc tcgtggtact 9660

tgaggcgcga gtaggcgcgc gtgtcgaaga tgtagtcgtt gcaggtgcgc accaggtact 9720

ggtagccgat gaggaagtgc ggcggcggct ggcggtagag cggccatcgc tcggtggcgg 9780

gggcgccggg cgcgaggtcc tcgagcatgg tgcggtggta gccgtagatg tacctggaca 9840

tccaggtgat gccggcggcg gtggtggagg cgcgcgggaa ctcgcggacg cggttccaga 9900

tgttgcgcag cggcaggaag tagttcatgg tgggcacggt ctggcccgtg aggcgcgcgc 9960

agtcgtggat gctctatacg ggcaaaaacg aaagcggtca gcggctcgac tccgtggcct 10020

ggaggctaag cgaacgggtt gggctgcgcg tgtaccccgg ttcgaatctc gaatcaggct 10080

ggagccgcag ctaacgtggt attggcactc ccgtctcgac ccaagcctgc accaaccctc 10140

caggatacgg aggcgggtcg ttttgcaact ttttttgga ggccggatga gactagtaag 10200

cgcggaaagc ggccgaccgc gatggctcgc tgccgtagtc tggagaagaa tcgccagggt 10260

tgcgttgcgg tgtgccccgg ttcgaggccg gccggattcc gcggctaacg agggcgtggc 10320

tgccccgtcg tttccaagac cccatagcca gccgacttct ccagttacgg agcgagcccc 10380

tcttttgttt tgtttgtttt tgccagatgc atcccgtact gcggcagatg cgcccccacc 10440

accctccacc gcaacaacag ccccctccac agccggcgct tctgcccccg ccccagcagc 10500

aacttccagc cacgaccgcc gcggccgccg tgagcggggc tggacagagt tatgatcacc 10560

agctggcctt ggaagagggc gaggggctgg cgcgcctggg ggcgtcgtcg ccggagcggc 10620

acccgcgcgt gcagatgaaa agggacgctc gcgaggccta cgtgcccaag cagaacctgt 10680

tcagagacag gagcggcgag gagcccgagg agatgcgcgc ggcccggttc cacgcggggc 10740

gggagctgcg gcgcggcctg gaccgaaaga gggtgctgag ggacgaggat ttcgaggcgg 10800

acgagctgac ggggatcagc cccgcgcgcg cgcacgtggc cgcggccaac ctggtcacgg 10860

cgtacgagca gaccgtgaag gaggagagca acttccaaaa atccttcaac aaccacgtgc 10920

gcaccctgat cgcgcgcgag gaggtgaccc tgggcctgat gcacctgtgg gacctgctgg 10980

aggccatcgt gcagaacccc accagcaagc cgctgacggc gcagctgttc ctggtggtgc 11040

agcatagtcg ggacaacgaa gcgttcaggg aggcgctgct gaatatcacc gagcccgagg 11100

gccgctggct cctggacctg gtgaacattc tgcagagcat cgtggtgcag gagcgcgggc 11160

tgccgctgtc cgagaagctg gcggccatca acttctcggt gctgagtttg ggcaagtact 11220

acgctaggaa gatctacaag accccgtacg tgcccataga caaggaggtg aagatcgacg 11280

ggttttacat gcgcatgacc ctgaaagtgc tgaccctgag cgacgatctg ggggtgtacc 11340

gcaacgacag gatgcaccgt gcggtgagcg ccagcaggcg gcgcgagctg agcgaccagg 11400

agctgatgca tagtctgcag cgggccctga ccggggccgg gaccgagggg gagagctact 11460

ttgacatggg cgcggacctg cactggcagc ccagccgccg ggccttggag gcggcggcag 11520

gaccctacgt agaagaggtg gacgatgagg tggacgagga gggcgagtac ctggaagact 11580

gatggcgcga ccgtattttt gctagatgca acaacaacag ccacctcctg atcccgcgat 11640

gcgggcggcg ctgcagagcc agccgtccgg cattaactcc tcggacgatt ggacccaggc 11700

catgcaacgc atcatggcgc tgacgacccg caaccccgaa gcctttagac agcagcccca 11760

ggccaaccgg ctctcggcca tcctggaggc cgtggtgccc tcgcgctcca accccacgca 11820

cgagaaggtc ctggccatcg tgaacgcgct ggtggagaac aaggccatcc gcggcgacga 11880

ggccggcctg gtgtacaacg cgctgctgga gcgcgtggcc cgctacaaca gcaccaacgt 11940

gcagaccaac ctggaccgca tggtgaccga cgtgcgcgag gccgtggccc agcgcgagcg 12000

gttccaccgc gagtccaacc tgggatccat ggtggcgctg aacgccttcc tcagcaccca 12060

gcccgccaac gtgccccggg gccaggagga ctacaccaac ttcatcagcg ccctgcgcct 12120

gatggtgacc gaggtgcccc agagcgaggt gtaccagtcc gggccggact acttcttcca 12180

gaccagtcgc cagggcttgc agaccgtgaa cctgagccag gctttcaaga acttgcaggg 12240

cctgtggggc gtgcaggccc cggtcgggga ccgcgcgacg gtgtcgagcc tgctgacgcc 12300

gaactcgcgc ctgctgctgc tgctggtggc ccccttcacg gacagcggca gcatcaaccg 12360

caactcgtac ctgggctacc tgattaacct gtaccgcgag gccatcggcc aggcgcacgt 12420

ggacgagcag acctaccagg agatcaccca cgtgagccgc gccctgggcc aggacgaccc 12480

gggcaacctg gaagccaccc tgaacttttt gctgaccaac cggtcgcaga agatcccgcc 12540

ccagtacgcg ctcagcaccg aggaggagcg catcctgcgt tacgtgcagc agagcgtggg 12600

cctgttcctg atgcaggagg gggccacccc cagcgccgcg ctcgacatga ccgcgcgcaa 12660

catggagccc agcatgtacg ccagcaaccg cccgttcatc aataaactga tggactactt 12720

gcatcgggcg gccgccatga actctgacta tttcaccaac gccatcctga atccccactg 12780

gctcccgccg ccggggttct acacgggcga gtacgacatg cccgacccca atgacgggtt 12840

cctgtgggac gatgtggaca gcagcgtgtt ctcccccccga ccgggtgcta acgagcgccc 12900

cttgtggaag aaggaaggca gcgaccgacg cccgtcctcg gcgctgtccg gccgcgaggg 12960

tgctgccgcg gcggtgcccg aggccgccag tcctttcccg agcttgccct tctcgctgaa 13020

cagtatccgc agcagcgagc tgggcaggat cacgcgcccg cgcttgctgg gcgaagagga 13080

gtacttgaat gactcgctgt tgagacccga gcgggagaag aacttcccca ataacgggat 13140

agaaagcctg gtggacaaga tgagccgctg gaagacgtat gcgcaggagc acagggacga 13200

tccccgggcg tcgcaggggg ccacgagccg gggcagcgcc gcccgtaaac gccggtggca 13260

cgacaggcag cggggacaga tgtgggacga tgaggactcc gccgacgaca gcagcgtgtt 13320

ggacttgggt gggagtggta acccgttcgc tcacctgcgc ccccgtatcg ggcgcatgat 13380

gtaagagaaa ccgaaaataa atgatactca ccaaggccat ggcgaccagc gtgcgttcgt 13440

ttcttctctg ttgttgttgt atctagtatg atgaggcgtg cgtacccgga gggtcctcct 13500

ccctcgtacg agagcgtgat gcagcaggcg atggcggcgg cggcgatgca gcccccgctg 13560

gaggctcctt acgtgccccc gcggtacctg gcgcctacgg aggggcggaa cagcattcgt 13620

tactcggagc tggcaccctt gtacgatacc acccggttgt acctggtgga caacaagtcg 13680

gcggacatcg cctcgctgaa ctaccagaac gaccacagca acttcctgac caccgtggtg 13740

cagaacaatg acttcacccc cacggaggcc agcacccaga ccatcaactt tgacgagcgc 13800

tcgcggtggg gcggccagct gaaaaccatc atgcacacca acatgcccaa cgtgaacgag 13860

ttcatgtaca gcaacaagtt caaggcgcgg gtgatggtct cccgcaagac ccccaatggg 13920

gtgacagtga cagaggatta tgatggtagt caggatgagc tgaagtatga atgggtggaa 13980

tttgagctgc ccgaaggcaa cttctcggtg accatgacca tcgacctgat gaacaacgcc 14040

atcatcgaca attacttggc ggtggggcgg cagaacgggg tgctggagag cgacatcggc 14100

gtgaagttcg acactaggaa cttcaggctg ggctgggacc ccgtgaccga gctggtcatg 14160

cccggggtgt acaccaacga ggctttccat cccgatattg tcttgctgcc cggctgcggg 14220

gtggacttca ccgagagccg cctcagcaac ctgctgggca ttcgcaagag gcagcccttc 14280

caggaaggct tccagatcat gtacgaggat ctggaggggg gcaacatccc cgcgctcctg 14340

gatgtcgacg cctatgagaa aagcaaggag gatgcagcag ctgaagcaac tgcagccgta 14400

gctaccgcct ctaccgaggt caggggcgat aattttgcaa gcgccgcagc agtggcagcg 14460

gccgaggcgg ctgaaaccga aagtaagata gtcattcagc cggtggagaa ggatagcaag 14520

aacaggagct acaacgtact accggacaag ataaacaccg cctaccgcag ctggtaccta 14580

gcctacaact atggcgaccc cgagaagggc gtgcgctcct ggacgctgct caccacctcg 14640

gacgtcacct gcggcgtgga gcaagtctac tggtcgctgc ccgacatgat gcaagacccg 14700

gtcaccttcc gctccacgcg tcaagttagc aactacccgg tggtgggcgc cgagctcctg 14760

cccgtctact ccaagagctt cttcaacgag caggccgtct actcgcagca gctgcgcgcc 14820

ttcacctcgc ttacgcacgt cttcaaccgc ttccccgaga accagatcct cgtccgcccg 14880

cccgcgccca ccattaccac cgtcagtgaa aacgttcctg ctctcacaga tcacgggacc 14940

ctgccgctgc gcagcagtat ccggggagtc cagcgcgtga ccgttactga cgccagacgc 15000

cgcacctgcc cctacgtcta caaggccctg ggcatagtcg cgccgcgcgt cctctcgagc 15060

cgcaccttct aaatgtccat tctcatctcg cccagtaata acaccggttg gggcctgcgc 15120

gcgcccagca agatgtacgg aggcgctcgc caacgctcca cgcaacaccc cgtgcgcgtg 15180

cgcgggcact tccgcgctcc ctggggcgcc ctcaagggcc gcgtgcggtc gcgcaccacc 15240

gtcgacgacg tgatcgacca ggtggtggcc gacgcgcgca actacacccc cgccgccgcg 15300

cccgtctcca ccgtggacgc cgtcatcgac agcgtggtgg ccgacgcgcg ccggtacgcc 15360

cgcgccaaga gccggcggcg gcgcatcgcc cggcggcacc ggagcacccc cgccatgcgc 15420

gcggcgcgag ccttgctgcg cagggccagg cgcacgggac gcagggccat gctcagggcg 15480

gccagacgcg cggcttcagg cgccagcgcc ggcaggaccc ggagacgcgc ggccacggcg 15540

gcggcagcgg ccatcgccag catgtcccgc ccgcggcgag ggaacgtgta ctgggtgcgc 15600

gacgccgcca ccggtgtgcg cgtgcccgtg cgcacccgcc cccctcgcac ttgaagatgt 15660

tcacttcgcg atgttgatgt gtcccagcgg cgaggaggat gtccaagcgc aaattcaagg 15720

aagagatgct ccaggtcatc gcgcctgaga tctacggccc tgcggtggtg aaggaggaaa 15780

gaaagccccg caaaatcaag cgggtcaaaa aggacaaaaa ggaagaagaa agtgatgtgg 15840

acggattggt ggagtttgtg cgcgagttcg ccccccggcg gcgcgtgcag tggcgcgggc 15900

ggaaggtgca accggtgctg agacccggca ccaccgtggt cttcacgccc ggcgagcgct 15960

ccggcaccgc ttccaagcgc tcctacgacg aggtgtacgg ggatgatgat attctggagc 16020

aggcggccga gcgcctgggc gagtttgctt acggcaagcg cagccgttcc gcaccgaagg 16080

aagaggcggt gtccatcccg ctggaccacg gcaaccccac gccgagcctc aagcccgtga 16140

ccttgcagca ggtgctgccg accgcggcgc cgcgccgggg gttcaagcgc gagggcgagg 16200

atctgtaccc caccatgcag ctgatggtgc ccaagcgcca gaagctggaa gacgtgctgg 16260

agaccatgaa ggtggacccg gacgtgcagc ccgaggtcaa ggtgcggccc atcaagcagg 16320

tggccccggg cctgggcgtg cagaccgtgg acatcaagat tcccacggag cccatggaaa 16380

cgcagaccga gcccatgatc aagcccagca ccagcaccat ggaggtgcag acggatccct 16440

ggatgccatc ggctcctagt cgaagacccc ggcgcaagta cggcgcggcc agcctgctga 16500

tgcccaacta cgcgctgcat ccttccatca tccccacgcc gggctaccgc ggcacgcgct 16560

tctaccgcgg tcataccagc agccgccgcc gcaagaccac cactcgccgc cgccgtcgcc 16620

gcaccgccgc tgcaaccacc cctgccgccc tggtgcggag agtgtaccgc cgcggccgcg 16680

cacctctgac cctgccgcgc gcgcgctacc acccgagcat cgccatttaa actttcgcct 16740

gctttgcaga tcaatggccc tcacatgccg ccttcgcgtt cccattacgg gctaccgagg 16800

aagaaaaccg cgccgtagaa ggctggcggg gaacgggatg cgtcgccacc accaccggcg 16860

gcggcgcgcc atcagcaagc ggttgggggg aggcttcctg cccgcgctga tccccatcat 16920

cgccgcggcg atcggggcga tccccggcat tgcttccgtg gcggtgcagg cctctcagcg 16980

ccactgagac acacttggaa acatcttgta ataaaccaat ggactctgac gctcctggtc 17040

ctgtgatgtg ttttcgtaga cagatggaag acatcaattt ttcgtccctg gctccgcgac 17100

acggcacgcg gccgttcatg ggcacctgga gcgacatcgg caccagccaa ctgaacgggg 17160

gcgccttcaa ttggagcagt ctctggagcg ggcttaagaa tttcgggtcc acgcttaaaa 17220

cctatggcag caaggcgtgg aacagcacca cagggcaggc gctgagggat aagctgaaag 17280

agcagaactt ccagcagaag gtggtcgatg ggctcgcctc gggcatcaac ggggtggtgg 17340

acctggccaa ccaggccgtg cagcggcaga tcaacagccg cctggacccg gtgccgcccg 17400

ccggctccgt ggagatgccg caggtggagg aggagctgcc tcccctggac aagcggggcg 17460

agaagcgacc ccgccccgat gcggaggaga cgctgctgac gcacacggac gagccgcccc 17520

cgtacgagga ggcggtgaaa ctgggtctgc ccaccacgcg gcccatcgcg cccctggcca 17580

ccggggtgct gaaacccgaa aagcccgcga ccctggactt gcctcctccc cagccttccc 17640

gcccctctac agtggctaag cccctgccgc cggtggccgt ggcccgcgcg cgacccgggg 17700

gcaccgcccg ccctcatgcg aactggcaga gcactctgaa cagcatcgtg ggtctgggag 17760

tgcagagtgt gaagcgccgc cgctgctatt aaacctaccg tagcgcttaa cttgcttgtc 17820

tgtgtgtgta tgtattatgt cgccgccgcc gctgtccacc agaaggagga gtgaagaggc 17880

gcgtcgccga gttgcaagat ggccacccca tcgatgctgc cccagtgggc gtacatgcac 17940

atcgccggac aggacgcttc ggagtacctg agtccgggtc tggtgcagtt tgcccgcgcc 18000

acagacacct acttcagtct ggggaacaag tttaggaacc ccacggtggc gcccacgcac 18060

gatgtgacca ccgaccgcag ccagcggctg acgctgcgct tcgtgcccgt ggaccgcgag 18120

gacaacacct actcgtacaa agtgcgctac acgctggccg tgggcgacaa ccgcgtgctg 18180

gacatggcca gcacctactt tgacatccgc ggcgtgctgg atcggggccc tagcttcaaa 18240

ccctactccg gcaccgccta caacagtctg gcccccaagg gagcacccaa cacttgtcag 18300

tggacatata aagccgatgg tgaaactgcc acagaaaaaa cctatacata tggaaatgca 18360

cccgtgcagg gcattaacat cacaaaagat ggtattcaac ttggaactga caccgatgat 18420

cagccaatct acgcagataa aacctatcag cctgaacctc aagtgggtga tgctgaatgg 18480

catgacatca ctggtactga tgaaaagtat ggaggcagag ctcttaagcc tgataccaaa 18540

atgaagcctt gttatggttc ttttgccaag cctactaata aagaaggagg tcaggcaaat 18600

gtgaaaacag gaacaggcac tactaaagaa tatgacatag acatggcttt ctttgacaac 18660

agaagtgcgg ctgctgctgg cctagctcca gaaattgttt tgtatactga aaatgtggat 18720

ttggaaactc cagataccca tattgtatac aaagcaggca cagatgacag cagctcttct 18780

attaatttgg gtcagcaagc catgcccaac agacctaact acattggttt cagagacaac 18840

tttatcgggc tcatgtacta caacagcact ggcaatatgg gggtgctggc cggtcaggct 18900

tctcagctga atgctgtggt tgacttgcaa gacagaaaca ccgagctgtc ctaccagctc 18960

ttgcttgact ctctgggtga cagaacccgg tatttcagta tgtggaatca ggcggtggac 19020

agctatgatc ctgatgtgcg cattattgaa aatcatggtg tggaggatga acttcccaac 19080

tattgtttcc ctctggatgc tgttggcaga acagatactt atcagggaat taaggctaat 19140

ggaactgatc aaaccacatg gaccaaagat gacagtgtca atgatgctaa tgagataggc 19200

aagggtaatc cattcgccat ggaaatcaac atccaagcca acctgtggag gaacttcctc 19260

tacgccaacg tggccctgta cctgcccgac tcttacaagt acacgccggc caatgttacc 19320

ctgcccacca acaccaacac ctacgattac atgaacggcc gggtggtggc gccctcgctg 19380

gtggactcct acatcaacat cggggcgcgc tggtcgctgg atcccatgga caacgtgaac 19440

cccttcaacc accaccgcaa tgcggggctg cgctaccgct ccatgctcct gggcaacggg 19500

cgctacgtgc ccttccacat ccaggtgccc cagaaatttt tcgccatcaa gagcctcctg 19560

ctcctgcccg ggtcctacac ctacgagtgg aacttccgca aggacgtcaa catgatcctg 19620

cagagctccc tcggcaacga cctgcgcacg gacggggcct ccatctcctt caccagcatc 19680

aacctctacg ccaccttctt ccccatggcg cacaacacgg cctccacgct cgaggccatg 19740

ctgcgcaacg acaccaacga ccagtccttc aacgactacc tctcggcggc caacatgctc 19800

taccccatcc cggccaacgc caccaacgtg cccatctcca tcccctcgcg caactgggcc 19860

gccttccgcg gctggtcctt cacgcgtctc aagaccaagg agacgccctc gctgggctcc 19920

gggttcgacc cctacttcgt ctactcgggc tccatcccct acctcgacgg caccttctac 19980

ctcaaccaca ccttcaagaa ggtctccatc accttcgact cctccgtcag ctggcccggc 20040

aacgaccggc tcctgacgcc caacgagttc gaaatcaagc gcaccgtcga cggcgagggc 20100

tacaacgtgg cccagtgcaa catgaccaag gactggttcc tggtccagat gctggcccac 20160

tacaacatcg gctaccaggg cttctacgtg cccgagggct acaaggaccg catgtactcc 20220

ttcttccgca acttccagcc catgagccgc caggtggtgg acgaggtcaa ctacaaggac 20280

taccaggccg tcaccctggc ctaccagcac aacaactcgg gcttcgtcgg ctacctcgcg 20340

cccaccatgc gccagggcca gccctacccc gccaactacc cctacccgct catcggcaag 20400

agcgccgtca ccagcgtcac ccagaaaaag ttcctctgcg acagggtcat gtggcgcatc 20460

cccttctcca gcaacttcat gtccatgggc gcgctcaccg acctcggcca gaacatgctc 20520

tatgccaact ccgcccacgc gctagacatg aatttcgaag tcgaccccat ggatgagtcc 20580

acccttctct atgttgtctt cgaagtcttc gacgtcgtcc gagtgcacca gccccaccgc 20640

ggcgtcatcg aggccgtcta cctgcgcacc cccttctcgg ccggtaacgc caccacctaa 20700

gctcttgctt cttgcaagcc atggccgcgg gctccggcga gcaggagctc agggccatca 20760

tccgcgacct gggctgcggg ccctacttcc tgggcacctt cgataagcgc ttcccgggat 20820

tcatggcccc gcacaagctg gcctgcgcca tcgtcaacac ggccggccgc gagaccgggg 20880

gcgagcactg gctggccttc gcctggaacc cgcgctcgaa cacctgctac ctcttcgacc 20940

ccttcgggtt ctcggacgag cgcctcaagc agatctacca gttcgagtac gagggcctgc 21000

tgcgccgcag cgccctggcc accgaggacc gctgcgtcac cctggaaaag tccacccaga 21060

ccgtgcaggg tccgcgctcg gccgcctgcg ggctcttctg ctgcatgttc ctgcacgcct 21120

tcgtgcactg gcccgaccgc cccatggaca agaaccccac catgaacttg ctgacggggg 21180

tgcccaacgg catgctccag tcgccccagg tggaacccac cctgcgccgc aaccaggagg 21240

cgctctaccg cttcctcaac tcccactccg cctactttcg ctcccaccgc gcgcgcatcg 21300

agaaggccac cgccttcgac cgcatgaatc aagacatgta aaccgtgtgt gtatgttaaa 21360

tgtctttaat aaacagcact ttcatgttac acatgcatct gagatgattt atttagaaat 21420

cgaaagggtt ctgccgggtc tcggcatggc ccgcgggcag ggacacgttg cggaactggt 21480

acttggccag ccacttgaac tcggggatca gcagtttggg cagcggggtg tcggggaagg 21540

agtcggtcca cagcttccgc gtcagttgca gggcgcccag caggtcgggc gcggagatct 21600

tgaaatcgca gttgggaccc gcgttctgcg cgcgggagtt gcggtacacg gggttgcagc 21660

actggaacac catcagggcc gggtgcttca cgctcgccag caccgtcgcg tcggtgatgc 21720

tctccacgtc gaggtcctcg gcgttggcca tcccgaaggg ggtcatcttg caggtctgcc 21780

ttcccatggt gggcacgcac ccgggcttgt ggttgcaatc gcagtgcagg gggatcagca 21840

tcatctgggc ctggtcggcg ttcatccccg ggtacatggc cttcatgaaa gcctccaatt 21900

gcctgaacgc ctgctgggcc ttggctccct cggtgaagaa gaccccgcag gacttgctag 21960

agaactggtt ggtggcgcac ccggcgtcgt gcacgcagca gcgcgcgtcg ttgttggcca 22020

gctgcaccac gctgcgcccc cagcggttct gggtgatctt ggcccggtcg gggttctcct 22080

tcagcgcgcg ctgcccgttc tcgctcgcca catccatctc gatcatgtgc tccttctgga 22140

tcatggtggt cccgtgcagg caccgcagct tgccctcggc ctcggtgcac ccgtgcagcc 22200

acagcgcgca cccggtgcac tcccagttct tgtgggcgat ctgggaatgc gcgtgcacga 22260

agccctgcag gaagcggccc atcatggtgg tcagggtctt gttgctagtg aaggtcagcg 22320

gaatgccgcg gtgctcctcg ttgatgtaca ggtggcagat gcggcggtac acctcgccct 22380

gctcgggcat cagctggaag ttggctttca ggtcggtctc cacgcggtag cggtccatca 22440

gcatagtcat gatttccata cccttctccc aggccgagac gatgggcagg ctcatagggt 22500

tcttcaccat catcttagcg ctagcagccg cggccagggg gtcgctctcg tccagggtct 22560

caaagctccg cttgccgtcc ttctcggtga tccgcaccgg ggggtagctg aagcccacgg 22620

ccgccagctc ctcctcggcc tgtctttcgt cctcgctgtc ctggctgacg tcctgcagga 22680

ccacatgctt ggtcttgcgg ggtttcttct tgggcggcag cggcggcgga gatgttggag 22740

atggcgaggg ggagcgcgag ttctcgctca ccactactat ctcttcctct tcttggtccg 22800

aggccacgcg gcggtaggta tgtctcttcg ggggcagagg cggaggcgac gggctctcgc 22860

cgccgcgact tggcggatgg ctggcagagc cccttccgcg ttcgggggtg cgctcccggc 22920

ggcgctctga ctgacttcct ccgcggccgg ccattgtgtt ctcctaggga ggaacaacaa 22980

gcatggagac tcagccatcg ccaacctcgc catctgcccc caccgccgac gagaagcagc 23040

agcagcagaa tgaaagctta accgccccgc cgcccagccc cgccacctcc gacgcggccg 23100

tcccagacat gcaagagatg gaggaatcca tcgagattga cctgggctat gtgacgcccg 23160

cggagcacga ggaggagctg gcagtgcgct tttcacaaga agagatacac caagaacagc 23220

cagagcagga agcagagaat gagcagagtc aggctgggct cgagcatgac ggcgactacc 23280

tccacctgag cgggggggag gacgcgctca tcaagcatct ggcccggcag gccaccatcg 23340

tcaaggatgc gctgctcgac cgcaccgagg tgcccctcag cgtggaggag ctcagccgcg 23400

cctacgagtt gaacctcttc tcgccgcgcg tgccccccaa gcgccagccc aatggcacct 23460

gcgagcccaa cccgcgcctc aacttctacc cggtcttcgc ggtgcccgag gccctggcca 23520

cctaccacat ctttttcaag aaccaaaaga tccccgtctc ctgccgcgcc aaccgcaccc 23580

gcgccgacgc ccttttcaac ctgggtcccg gcgcccgcct acctgatatc gcctccttgg 23640

aagaggttcc caagatcttc gagggtctgg gcagcgacga gactcgggcc gcgaacgctc 23700

tgcaaggaga aggaggagag catgagcacc acagcgccct ggtcgagttg gaaggcgaca 23760

acgcgcggct ggcggtgctc aaacgcacgg tcgagctgac ccatttcgcc tacccggctc 23820

tgaacctgcc ccccaaagtc atgagcgcgg tcatggacca ggtgctcatc aagcgcgcgt 23880

cgcccatctc cgaggacgag ggcatgcaag actccgagga gggcaagccc gtggtcagcg 23940

acgagcagct ggcccggtgg ctgggtccta atgctagtcc ccagagtttg gaagagcggc 24000

gcaaactcat gatggccgtg gtcctggtga ccgtggagct ggagtgcctg cgccgcttct 24060

tcgccgacgc ggagaccctg cgcaaggtcg aggagaacct gcactacctc ttcaggcacg 24120

ggttcgtgcg ccaggcctgc aagatctcca acgtggagct gaccaacctg gtctcctaca 24180

tgggcatctt gcacgagaac cgcctggggc agaacgtgct gcacaccacc ctgcgcgggg 24240

aggcccggcg cgactacatc cgcgactgcg tctacctcta cctctgccac acctggcaga 24300

cgggcatggg cgtgtggcag cagtgtctgg aggagcagaa cctgaaagag ctctgcaagc 24360

tcctgcagaa gaacctcaag ggtctgtgga ccgggttcga cgagcgcacc accgcctcgg 24420

acctggccga cctcattttc cccgagcgcc tcaggctgac gctgcgcaac ggcctgcccg 24480

actttatgag ccaaagcatg ttgcaaaact ttcgctcttt catcctcgaa cgctccggaa 24540

tcctgcccgc cacctgctcc gcgctgccct cggacttcgt gccgctgacc ttccgcgagt 24600

gccccccgcc gctgtggagc cactgctacc tgctgcgcct ggccaactac ctggcctacc 24660

actcggacgt gatcgaggac gtcagcggcg agggcctgct cgagtgccac tgccgctgca 24720

acctctgcac gccgcaccgc tccctggcct gcaaccccca gctgctgagc gagacccaga 24780

tcatcggcac cttcgagttg caagggccca gcgaaggcga gggttcagcc gccaaggggg 24840

gtctgaaact caccccgggg ctgtggacct cggcctactt gcgcaagttc gtgcccgagg 24900

actaccatcc cttcgagatc aggttctacg aggaccaatc ccatccgccc aaggccgagc 24960

tgtcggcctg cgtcatcacc caggggggcga tcctggccca attgcaagcc atccagaaat 25020

cccgccaaga attcttgctg aaaaagggcc gcggggtcta cctcgacccc cagaccggtg 25080

aggagctcaa ccccggcttc ccccaggatg ccccgaggaa acaagaagct gaaagtggag 25140

ctgccgcccg tggaggattt ggaggaagac tgggagaaca gcagtcaggc agaggaggag 25200

gagatggagg aagactggga cagcactcag gcagaggagg acagcctgca agacagtctg 25260

gaggaagacg aggaggaggc agaggaggag gtggaagaag cagccgccgc cagaccgtcg 25320

tcctcggcgg gggagaaagc aagcagcacg gataccatct ccgctccggg tcggggtccc 25380

gctcgaccac acagtagatg ggacgagacc ggacgattcc cgaaccccac cacccagacc 25440

ggtaagaagg agcggcaggg atacaagtcc tggcgggggc acaaaaacgc catcgtctcc 25500

tgcttgcagg cctgcggggg caacatctcc ttcacccggc gctacctgct cttccaccgc 25560

ggggtgaact ttccccgcaa catcttgcat tactaccgtc acctccacag cccctactac 25620

ttccaagaag aggcagcagc agcagaaaaa gaccagcaga aaaccagcag ctagaaaatc 25680

cacagcggcg gcagcaggtg gactgaggat cgcggcgaac gagccggcgc aaacccggga 25740

gctgaggaac cggatctttc ccaccctcta tgccatcttc cagcagagtc gggggcagga 25800

gcaggaactg aaagtcaaga accgttctct gcgctcgctc acccgcagtt gtctgtatca 25860

caagagcgaa gaccaacttc agcgcactct cgaggacgcc gaggctctct tcaacaagta 25920

ctgcgcgctc actcttaaag agtagcccgc gcccgcccag tcgcagaaaa aggcgggaat 25980

tacgtcacct gtgcccttcg ccctagccgc ctccacccat catcatgagc aaagagattc 26040

ccacgcctta catgtggagc taccagcccc agatgggcct ggccgccggt gccgcccagg 26100

actactccac ccgcatgaat tggctcagcg ccgggcccgc gatgatctca cgggtgaatg 26160

acatccgcgc ccaccgaaac cagatactcc tagaacagtc agcgctcacc gccacgcccc 26220

gcaatcacct caatccgcgt aattggcccg ccgccctggt gtaccaggaa attccccagc 26280

ccacgaccgt actacttccg cgagacgccc aggccgaagt ccagctgact aactcaggtg 26340

tccagctggc gggcggcgcc accctgtgtc gtcaccgccc cgctcagggt ataaagcggc 26400

tggtgatccg gggcagaggc acacagctca acgacgaggt ggtgagctct tcgctgggtc 26460

tgcgacctga cggagtcttc caactcgccg gatcggggag atcttccttc acgcctcgtc 26520

aggccgtcct gactttggag agttcgtcct cgcagccccg ctcgggtggc atcggcactc 26580

tccagttcgt ggaggagttc actccctcgg tctacttcaa ccccttctcc ggctcccccg 26640

gccactaccc ggacgagttc atcccgaact tcgacgccat cagcgagtcg gtggacggct 26700

acgattgaaa ctaatcaccc ccttatccag tgaaataaag atcatattga tgatgatttt 26760

acagaaataa aaaataatca tttgatttga aataaagata caatcatatt gatgatttga 26820

gtttaacaaa aaaataaaga atcacttact tgaaatctga taccaggtct ctgtccatgt 26880

tttctgccaa caccacttca ctcccctctt cccagctctg gtactgcagg ccccggcggg 26940

ctgcaaactt cctccacacg ctgaagggga tgtcaaattc ctcctgtccc tcaatcttca 27000

ttttatcttc tatcagatgt ccaaaaagcg cgtccgggtg gatgatgact tcgaccccgt 27060

ctacccctac gatgcagaca acgcaccgac cgtgcccttc atcaaccccc ccttcgtctc 27120

ttcagatgga ttccaagaga agcccctggg ggtgttgtcc ctgcgactgg ccgaccccgt 27180

caccaccaag aacggggaaa tcaccctcaa gctgggagag ggggtggacc tcgattcctc 27240

gggaaaactc atctccaaca cggccaccaa ggccgccgcc cctctcagtt tttccaacaa 27300

caccatttcc cttaacatgg atcacccctt ttacactaaa gatggaaaat tatccttaca 27360

agtttctcca ccattaaata tactgagaac aagcattcta aacacactag ctttaggttt 27420

tggatcaggt ttaggactcc gtggctctgc cttggcagta cagttagtct ctccacttac 27480

atttgatact gatggaaaca taaagcttac cttagacaga ggtttgcatg ttacaacagg 27540

agatgcaatt gaaagcaaca taagctgggc taaaggttta aaatttgaag atggagccat 27600

agcaaccaac attggaaatg ggttagagtt tggaagcagt agtacagaaa caggtgttga 27660

tgatgcttac ccaatccaag ttaaacttgg atctggcctt agctttgaca gtacaggagc 27720

cataatggct ggtaacaaag aagacgataa actcactttg tggacaacac ctgatccatc 27780

accaaactgt caaatactcg cagaaaatga tgcaaaacta acactttgct tgactaaatg 27840

tggtagtcaa atactggcca ctgtgtcagt cttagttgta ggaagtggaa acctaaaccc 27900

cattactggc accgtaagca gtgctcaggt gtttctacgt tttgatgcaa acggtgttct 27960

tttaacagaa cattctacac taaaaaaata ctgggggtat aggcagggag atagcataga 28020

tggcactcca tataccaatg ctgtaggatt catgcccaat ttaaaagctt atccaaagtc 28080

acaaagttct actactaaaa ataatatagt agggcaagta tacatgaatg gagatgtttc 28140

aaaacctatg cttctcacta taaccctcaa tggtactgat gacagcaaca gtacatattc 28200

aatgtcattt tcatacacct ggactaatgg aagctatgtt ggagcaacat ttggggctaa 28260

ctcttatacc ttctcataca tcgcccaaga atgaacactg tatcccaccc tgcatgccaa 28320

cccttcccac cccactctgt ggaacaaact ctgaaacaca aaataaaata aagttcaagt 28380

gttttattga ttcaacagtt ttacaggatt cgagcagtta tttttcctcc accctcccag 28440

gacatggaat acaccaccct ctccccccgc acagccttga acatctgaat gccattggtg 28500

atggacatgc ttttggtctc cacgttccac acagtttcag agcgagccag tctcgggtcg 28560

gtcagggaga tgaaaccctc cgggcactcc cgcatctgca cctcacagct caacagctga 28620

ggattgtcct cggtggtcgg gatcacggtt atctggaaga agcagaagag cggcggtggg 28680

aatcatagtc cgcgaacggg atcggccggt ggtgtcgcat caggccccgc agcagtcgct 28740

gccgccgccg ctccgtcaag ctgctgctca gggggtccgg gtccagggac tccctcagca 28800

tgatgcccac ggccctcagc atcagtcgtc tggtgcggcg ggcgcagcag cgcatgcgga 28860

tctcgctcag gtcgctgcag tacgtgcaac acagaaccac caggttgttc aacagtccat 28920

agttcaacac gctccagccg aaactcatcg cgggaaggat gctacccacg tggccgtcgt 28980

accagatcct caggtaaatc aagtggtgcc ccctccagaa cacgctgccc acgtacatga 29040

tctccttggg catgtggcgg ttcaccacct cccggtacca catcaccctc tggttgaaca 29100

tgcagccccg gatgatcctg cggaaccaca gggccagcac cgccccgccc gccatgcagc 29160

gaagagaccc cgggtcccgg caatggcaat ggaggaccca ccgctcgtac ccgtggatca 29220

tctgggagct gaacaagtct atgttggcac agcacaggca tatgctcatg catctcttca 29280

gcactctcaa ctcctcgggg gtcaaaacca tatcccaggg cacggggaac tcttgcagga 29340

cagcgaaccc cgcagaacag ggcaatcctc gcacagaact tacattgtgc atggacaggg 29400

tatcgcaatc aggcagcacc gggtgatcct ccaccagaga agcgcgggtc tcggtctcct 29460

cacagcgtgg taaggggggcc ggccgatacg ggtgatggcg ggacgcggct gatcgtgttc 29520

gcgaccgtgt catgatgcag ttgctttcgg acattttcgt acttgctgta gcagaacctg 29580

gtccgggcgc tgcacaccga tcgccggcgg cggtctcggc gcttggaacg ctcggtgttg 29640

aaattgtaaa acagccactc tctcagaccg tgcagcagat ctagggcctc aggagtgatg 29700

aagatcccat catgcctgat ggctctgatc acatcgacca ccgtggaatg ggccagaccc 29760

agccagatga tgcaattttg ttgggtttcg gtgacggcgg gggagggaag aacaggaaga 29820

accatgatta acttttaatc caaacggtct cggagtactt caaaatgaag atcgcggaga 29880

tggcacctct cgcccccgct gtgttggtgg aaaataacag ccaggtcaaa ggtgatacgg 29940

ttctcgagat gttccacggt ggcttccagc aaagcctcca cgcgcacatc cagaaacaag 30000

acaatagcga aagcgggagg gttctctaat tcctcaatca tcatgttaca ctcctgcacc 30060

atccccagat aattttcatt tttccagcct tgaatgattc gaactagttc ctgaggtaaa 30120

tccaagccag ccatgataaa gagctcgcgc agagcgccct ccaccggcat tcttaagcac 30180

accctcataa ttccaagata ttctgctcct ggttcacctg cagcagattg acaagcggaa 30240

tatcaaaatc tctgccgcga tccctgagct cctccctcag caataactgt aagtactctt 30300

tcatatcctc tccgaaattt ttagccatag gaccaccagg aataagatta gggcaagcca 30360

cagtacagat aaaccgaagt cctccccagt gagcattgcc aaatgcaaga ctgctataag 30420

catgctggct agacccggtg atatcttcca gataactgga cagaaaatcg cccaggcaat 30480

ttttaagaaa atcaacaaaa gaaaaatcct ccaggtggac gtttagagcc tcgggaacaa 30540

cgatgaagta aatgcaagcg gtgcgttcca gcatggttag ttagctgatc tgtagaaaaa 30600

acaaaaatga acattaaacc atgctagcct ggcgaacagg tgggtaaatc gttctctcca 30660

gcaccaggca ggccacgggg tctccggcgc gaccctcgta aaaattgtcg ctatgattga 30720

aaaccatcac agagagacgt tcccggtggc cggcgtgaat gattcgacaa gatgaataca 30780

cccccggaac attggcgtcc gcgagtgaaa aaaagcgccc gaggaagcaa taaggcacta 30840

caatgctcag tctcaagtcc agcaaagcga tgccatgcgg atgaagcaca aaattctcag 30900

gtgcgtacaa aatgtaatta ctcccctcct gcacaggcag caaagccccc gatccctcca 30960

ggtacacata caaagcctca gcgtccatag cttaccgagc agcagcacac aacaggcgca 31020

agagtcagag aaaggctgag ctctaacctg tccacccgct ctctgctcaa tatatagccc 31080

agatctacac tgacgtaaag gccaaagtct aaaaataccc gccaaataat cacacacgcc 31140

cagcacacgc ccagaaaccg gtgacacact caaaaaaata cgcgcacttc ctcaaacgcc 31200

caaaactgcc gtcatttccg ggttcccacg ctacgtcatc aaaacacgac tttcaaattc 31260

cgtcgaccgt taaaaacgtc acccgccccg cccctaacgg tcgcccgtct ctcagccaat 31320

cagcgccccg catccccaaa ttcaaacacc tcatttgcat attaacgcgc acaaaaagtt 31380

tgaggtatat tattgatgat gg 31402

<210> 66
<211> 31627
<212> DNA
<213> Artificial Sequence

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

<400> 66
catcatcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatgacattg 600

attattgact agttgttaat agtaatcaat tacggggtca ttagttcata gcccatatat 660

ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc 720

ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca 780

ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta 840

tcatatgcca agtccgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta 900

tgcccagtac atgaccttac gggactttcc tacttggcag tacatctacg tattagtcat 960

cgctattacc atggtgatgc ggttttggca gtacaccaat gggcgtggat agcggtttga 1020

ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca 1080

aaatcaacgg gactttccaa aatgtcgtaa taaccccgcc ccgttgacgc aaatgggcgg 1140

taggcgtgta cggtgggagg tctatataag cagagctcgt ttagtgaacc gtcagatcgc 1200

ctggaacgcc atccacgctg ttttgacctc catagaagac agcgatcgcg ccaccatggc 1260

tggcatgacc gagtacaagc tggtggtagt gggagcaggg gatgttggaa aatcagcctt 1320

gactattcag ctcatccagg gcacagatct ggatcaccag gagaaatgtc tctcgcgact 1380

gtacgaccac atgcctgagg gtctgacccc ccttatggga gtgtcgtcct cttctgcgct 1440

ggcccgtctc ggattaccca tggataaact caataaaatc accgccccgg cgagccagaa 1500

gttaagacaa ctgcaaaaga tggaaactcc tgaactactg ccctgtgggt atcttgtaga 1560

agaaaatacc acgatctctg tgacagtgaa gggcctggag gctcagaata agatcaaagg 1620

gtgcactggg tcggtgaaca tgactttaca gagagccagc gcagctccta agactggtgg 1680

cgggggtgaa gccgctgcat acaacaacac tcttgtggca cggcacgtgc cccagatacc 1740

aaagcccgat tccttggtgg ggcttagtga tgagttgggg aagcgggaca cttttgcaga 1800

gtctctgatt cgtaggatgg catccgcggg ctacctgttc ctggacatca tcacatacgt 1860

ggtctttgct gtaaccttcg tgcttggtgt tttaggaggg ctgaacacag aaaccaatga 1920

gaaggcttta gaagctgtgt ttggcaagta tggaagaata gtggaggtgc tgggggggccg 1980

gtcatgcgag gagctgacgg cggtacttcc tccacctcag cttttgggca ggagatttaa 2040

cttcttctca tactcctatg tggccgcagg aagttccggg aataactatg acctcatggc 2100

ccaacccatc acgcccgggc ccgacacaac cccgttacca gtgaccgata ctagttccgt 2160

gagtacaggc cacgccacca gcctgcctgt gactgacgct ggactcaggg ttacagagag 2220

taaggggcac agcgattcat ggcacctgtc tttggatacg gccatcaggg tcaacacccc 2280

taaactggtg tccgaggttg aggaactcaa caaaagcatt acagcgctac gagaaaagct 2340

actgcagatg gtggaggccg acagacccgg aaacctcttc attgggggct taaatacaga 2400

gactaatgaa gacagcccgg tcaaggatga agtagtggtg aatgatcagt ggggacagaa 2460

ctgcagctgc caccacggcg gttacgagtt tccggacctg caccgcacca tcgtgtctga 2520

gtgtgacgtg tacctcacct acatgctgcg ccaggccgcc cttcagctgt tctttgatct 2580

ctaccactcc attccgtcaa gcttcagccc cttagtcctc agctgtttag tgcagccctt 2640

ggaagatgtg gaggtcatgg agaaggacgg caccacattc tcctgtgaag tttctcatga 2700

cgaggttcct cggacatatg gacccgtgtt tatgtgtctg ggaggactgc tgaccatggt 2760

ggctggagct gtttggctga cagttggacc cggaccaggc gccaaatttg ttgctgcttg 2820

gacactgaaa gctgctgctg ggcccggacc aggccagtac atcaaggcca actctaagtt 2880

tatcggcatc accgaattgg gacctggacc cggctagtag tgagtttaaa ctcccattta 2940

aatgtgaggg ttaatgcttc gagcagacat gataagatac attgatgagt ttggacaaac 3000

cacaactaga atgcagtgaa aaaaatgctt tatttgtgaa atttgtgatg ctattgcttt 3060

atttgtaacc attataagct gcaataaaca agttaacaac aacaattgca ttcattttat 3120

gtttcaggtt caggggggaga tgtgggaggt tttttaaagc aagtaaaacc tctacaaatg 3180

tggtaaaata actataacgg tcctaaggta gcgagtgagt agtgttctgg ggcgggggag 3240

gacctgcatg agggccagaa taactgaaat ctgtgctttt ctgtgtgttg cagcagcatg 3300

agcggaagcg gctcctttga gggaggggta ttcagccctt atctgacggg gcgtctcccc 3360

tcctgggcgg gagtgcgtca gaatgtgatg ggatccacgg tggacggccg gcccgtgcag 3420

cccgcgaact cttcaaccct gacctatgca accctgagct cttcgtcgtt ggacgcagct 3480

gccgccgcag ctgctgcatc tgccgccagc gccgtgcgcg gaatggccat gggcgccggc 3540

tactacggca ctctggtggc caactcgagt tccaccaata atcccgccag cctgaacgag 3600

gagaagctgt tgctgctgat ggcccagctc gaggccttga cccagcgcct gggcgagctg 3660

acccagcagg tggctcagct gcaggagcag acgcgggccg cggttgccac ggtgaaatcc 3720

aaataaaaaa tgaatcaata aataaacgga gacggttgtt gattttaaca cagagtctga 3780

atctttattt gatttttcgc gcgcggtagg ccctggacca ccggtctcga tcattgagca 3840

cccggtggat cttttccagg acccggtaga ggtgggcttg gatgttgagg tacatgggca 3900

tgagcccgtc ccgggggtgg aggtagctcc attgcagggc ctcgtgctcg ggggtggtgt 3960

tgtaaatcac ccagtcatag caggggcgca gggcatggtg ttgcacaata tctttgagga 4020

ggagactgat ggccacgggc agccctttgg tgtaggtgtt tacaaatctg ttgagctggg 4080

agggatgcat gcggggggag atgaggtgca tcttggcctg gatcttgaga ttggcgatgt 4140

taccgcccag atcccgcctg gggttcatgt tgtgcaggac caccagcacg gtgtatccgg 4200

tgcacttggg gaatttatca tgcaacttgg aagggaaggc gtgaaagaat ttggcgacgc 4260

ctttgtgccc gcccaggttt tccatgcact catccatgat gatggcgatg ggcccgtggg 4320

cggcggcctg ggcaaagacg tttcgggggt cggacacatc atagttgtgg tcctgggtga 4380

ggtcatcata ggccatttta atgaatttgg ggcggagggt gccggactgg gggacaaagg 4440

taccctcgat cccgggggcg tagttcccct cacagatctg catctcccag gctttgagct 4500

cggaggggggg gatcatgtcc acctgcgggg cgataaagaa cacggtttcc ggggcggggg 4560

agatgagctg ggccgaaagc aagttccgga gcagctggga cttgccgcag ccggtggggc 4620

cgtagatgac cccgatgacc ggctgcaggt ggtagttgag ggagagacag ctgccgtcct 4680

cccggaggag gggggccacc tcgttcatca tctcgcgcac gtgcatgttc tcgcgcacca 4740

gttccgccag gaggcgctct ccccccaggg ataggagctc ctggagcgag gcgaagtttt 4800

tcagcggctt gagtccgtcg gccatgggca ttttggagag ggtttgttgc aagagttcca 4860

ggcggtccca gagctcggtg atgtgctcta cggcatctcg atccagcaga cctcctcgtt 4920

tcgcgggttg ggacggctgc gggagtaggg caccagacga tgggcgtcca gcgcagccag 4980

ggtccggtcc ttccagggtc gcagcgtccg cgtcagggtg gtctccgtca cggtgaaggg 5040

gtgcgcgccg ggctgggcgc ttgcgagggt gcgcttcagg ctcatccggc tggtcgaaaa 5100

ccgctcccga tcggcgccct gcgcgtcggc caggtagcaa ttgaccatga gttcgtagtt 5160

gagcgcctcg gccgcgtggc ctttggcgcg gagcttacct ttggaagtct gcccgcaggc 5220

gggacagagg agggacttga gggcgtagag cttgggggcg aggaagacgg actcgggggc 5280

gtaggcgtcc gcgccgcagt gggcgcagac ggtctcgcac tccacgagcc aggtgaggtc 5340

gggctggtcg gggtcaaaaa ccagtttccc gccgttcttt ttgatgcgtt tcttaccttt 5400

ggtctccatg agctcgtgtc cccgctgggt gacaaagagg ctgtccgtgt ccccgtagac 5460

cgactttatg ggccggtcct cgagcggtgt gccgcggtcc tcctcgtaga ggaaccccgc 5520

ccactccgag acgaaagccc gggtccaggc cagcacgaag gaggccacgt gggacgggta 5580

gcggtcgttg tccaccagcg ggtccacctt ttccagggta tgcaaacaca tgtccccctc 5640

gtccacatcc aggaaggtga ttggcttgta agtgtaggcc acgtgaccgg gggtcccggc 5700

cgggggggta taaaagggtg cgggtccctg ctcgtcctca ctgtcttccg gatcgctgtc 5760

caggagcgcc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctcggcact 5820

caggttgtca gtttctagaa acgaggagga tttgatattg acggtgccgg cggagatgcc 5880

tttcaagagc ccctcgtcca tctggtcaga aaagacgatc tttttgttgt cgagcttggt 5940

ggcgaaggag ccgtagaggg cgttggagag gagcttggcg atggagcgca tggtctggtt 6000

tttttccttg tcggcgcgct ccttggcggc gatgttgagc tgcacgtact cgcgcgccac 6060

gcacttccat tcggggaaga cggtggtcag ctcgtcgggc acgattctga cctgccagcc 6120

ccgattatgc agggtgatga ggtccacact ggtggccacc tcgccgcgca ggggctcatt 6180

agtccagcag aggcgtccgc ccttgcgcga gcagaagggg ggcaggggtg ccagcatgac 6240

ctcgtcgggg gggtcggcat cgatggtgaa gatgccgggc aggaggtcgg ggtcaaagta 6300

gctgatggaa gtggccagat cgtccagggc agcttgccat tcgcgcacgg ccagcgcgcg 6360

ctcgtaggga ctgaggggcg tgccccaggg catgggatgg gtaagcgcgg aggcgtacat 6420

gccgcagatg tcgtagacgt agaggggctc ctcgaggatg ccgatgtagg tggggtagca 6480

gcgccccccg cggatgctgg cgcgcacgta gtcatacagc tcgtgcgagg gggcgaggag 6540

ccccgggccc aggttggtgc gactgggctt ttcggcgcgg tagacgatct ggcggaaaat 6600

ggcatgcgag ttggaggaga tggtgggcct ttggaagatg ttgaagtggg cgtggggcag 6660

tccgaccgag tcgcggatga agtgggcgta ggagtcttgc agcttggcga cgagctcggc 6720

ggtgactagg acgtccagag cgcagtagtc gagggtctcc tggatgatgt catacttgag 6780

ctgtcccttt tgtttccaca gctcgcggtt gagaaggaac tcttcgcggt ccttccagta 6840

ctcttcgagg gggaacccgt cctgatctgc acggtaagag cctagcatgt agaactggtt 6900

gacggccttg taggcgcagc agcccttctc cacggggagg gcgtaggcct gggcggcctt 6960

gcgcagggag gtgtgcgtga gggcgaaagt gtccctgacc atgaccttga ggaactggtg 7020

cttgaagtcg atatcgtcgc agccccccctg ctcccagagc tggaagtccg tgcgcttctt 7080

gtaggcgggg ttgggcaaag cgaaagtaac atcgttgaag aggatcttgc ccgcgcgggg 7140

cataaagttg cgagtgatgc ggaaaggttg gggcacctcg gcccggttgt tgatgacctg 7200

ggcggcgagc acgatctcgt cgaagccgtt gatgttgtgg cccacgatgt agagttccac 7260

gaatcgcgga cggcccttga cgtggggcag tttcttgagc tcctcgtagg tgagctcgtc 7320

ggggtcgctg agcccgtgct gctcgagcgc ccagtcggcg agatgggggt tggcgcggag 7380

gaaggaagtc cagagatcca cggccagggc ggtttgcaga cggtcccggt actgacggaa 7440

ctgctgcccg acggccattt tttcgggggt gacgcagtag aaggtgcggg ggtccccgtg 7500

ccagcgatcc catttgagct ggagggcgag atcgagggcg agctcgacga gccggtcgtc 7560

cccggagagt ttcatgacca gcatgaaggg gacgagctgc ttgccgaagg accccatcca 7620

ggtgtaggtt tccacatcgt aggtgaggaa gagcctttcg gtgcgaggat gcgagccgat 7680

ggggaagaac tggatctcct gccaccaatt ggaggaatgg ctgttgatgt gatggaagta 7740

gaaatgccga cggcgcgccg aacactcgtg cttgtgttta tacaagcggc cacagtgctc 7800

gcaacgctgc acgggatgca cgtgctgcac gagctgtacc tgagttcctt tgacgaggaa 7860

tttcagtggg aagtggagtc gtggcgcctg catctcgtgc tgtactacgt cgtggtggtc 7920

ggcctggccc tcttctgcct cgatggtggt catgctgacg agcccgcgcg ggaggcaggt 7980

ccagacctcg gcgcgagcgg gtcggagagc gaggacgagg gcgcgcaggc cggagctgtc 8040

cagggtcctg agacgctgcg gagtcaggtc agtgggcagc ggcggcgcgc ggttgacttg 8100

caggagtttt tccagggcgc gcgggaggtc cagatggtac ttgatctcca ccgcgccatt 8160

ggtggcgacg tcgatggctt gcagggtccc gtgcccctgg ggtgtgacca ccgtcccccg 8220

tttcttcttg ggcggctggg gcgacggggg cggtgcctct tccatggtta gaagcggcgg 8280

cgaggacgcg cgccgggcgg caggggcggc tcggggcccg gaggcagggg cggcaggggc 8340

acgtcggcgc cgcgcgcggg taggttctgg tactgcgccc ggagaagact ggcgtgagcg 8400

acgacgcgac ggttgacgtc ctggatctga cgcctctggg tgaaggccac gggacccgtg 8460

agtttgaacc tgaaagagag ttcgacagaa tcaatctcgg tatcgttgac ggcggcctgc 8520

cgcaggatct cttgcacgtc gcccgagttg tcctggtagg cgatctcggt catgaactgc 8580

tcgatctcct cctcttgaag gtctccgcgg ccggcgcgct ccacggtggc cgcgaggtcg 8640

ttggagatgc ggcccatgag ctgcgagaag gcgttcatgc ccgcctcgtt ccagacgcgg 8700

ctgtagacca cgacgccctc gggatcgcgg gcgcgcatga ccacctgggc gaggttgagc 8760

tccacgtggc gcgtgaagac cgcgtagttg cagaggcgct ggtagaggta gttgagcgtg 8820

gtggcgatgt gctcggtgac gaagaaatac atgatccagc ggcggagcgg catctcgctg 8880

acgtcgccca gcgcctccaa acgttccatg gcctcgtaaa agtccacggc gaagttgaaa 8940

aactgggagt tgcgcgccga gacggtcaac tcctcctcca gaagacggat gagctcggcg 9000

atggtggcgc gcacctcgcg ctcgaaggcc cccgggagtt cctccacttc ctcttcttcc 9060

tcctccacta acatctcttc tacttcctcc tcaggcggca gtggtggcgg gggaggggcc 9120

ctgcgtcgcc ggcggcgcac gggcagacgg tcgatgaagc gctcgatggt ctcgccgcgc 9180

cggcgtcgca tggtctcggt gacggcgcgc ccgtcctcgc ggggccgcag cgtgaagacg 9240

ccgccgcgca tctccaggtg gccgggggcgg tccccgttgg gcagggagag ggcgctgacg 9300

atgcatctta tcaattgccc cgtagggact ccgcgcaagg acctgagcgt ctcgagatcc 9360

acgggatctg aaaaccgctg aacgaaggct tcgagccagt cgcagtcgca aggtaggctg 9420

agcacggttt cttctggcgg gtcatgttgg ttgggagcgg ggcgggcgat gctgctggtg 9480

atgaagttga aataggcggt tctgagacgg cggatggtgg cgaggagcac caggtctttg 9540

ggcccggctt gctggatgcg cagacggtcg gccatgcccc aggcgtggtc ctgacacctg 9600

gccaggtcct tgtagtagtc ctgcatgagc cgctccacgg gcacctcctc ctcgcccgcg 9660

cggccgtgca tgcgcgtgag cccgaagccg cgctggggct ggacgagcgc caggtcggcg 9720

acgacgcgct cggcgaggat ggcttgctgg atctgggtga gggtggtctg gaagtcatca 9780

aagtcgacga agcggtggta ggctccggtg ttgatggtgt aggagcagtt ggccatgacg 9840

gaccagttga cggtctggtg gcccggacgc acgagctcgt ggtacttgag gcgcgagtag 9900

gcgcgcgtgt cgaagatgta gtcgttgcag gtgcgcacca ggtactggta gccgatgagg 9960

aagtgcggcg gcggctggcg gtagagcggc catcgctcgg tggcgggggc gccgggcgcg 10020

aggtcctcga gcatggtgcg gtggtagccg tagatgtacc tggacatcca ggtgatgccg 10080

gcggcggtgg tggaggcgcg cgggaactcg cggacgcggt tccagatgtt gcgcagcggc 10140

aggaagtagt tcatggtggg cacggtctgg cccgtgaggc gcgcgcagtc gtggatgctc 10200

tatacgggca aaaacgaaag cggtcagcgg ctcgactccg tggcctggag gctaagcgaa 10260

cgggttgggc tgcgcgtgta ccccggttcg aatctcgaat caggctggag ccgcagctaa 10320

cgtggtattg gcactcccgt ctcgacccaa gcctgcacca accctccagg atacggaggc 10380

gggtcgtttt gcaacttttt tttggaggcc ggatgagact agtaagcgcg gaaagcggcc 10440

gaccgcgatg gctcgctgcc gtagtctgga gaagaatcgc cagggttgcg ttgcggtgtg 10500

ccccggttcg aggccggccg gattccgcgg ctaacgaggg cgtggctgcc ccgtcgtttc 10560

caagacccca tagccagccg acttctccag ttacggagcg agcccctctt ttgttttgtt 10620

tgtttttgcc agatgcatcc cgtactgcgg cagatgcgcc cccaccaccc tccaccgcaa 10680

caacagcccc ctccacagcc ggcgcttctg cccccgcccc agcagcaact tccagccacg 10740

accgccgcgg ccgccgtgag cggggctgga cagagttatg atcaccagct ggccttggaa 10800

gagggcgagg ggctggcgcg cctgggggcg tcgtcgccgg agcggcaccc gcgcgtgcag 10860

atgaaaaggg acgctcgcga ggcctacgtg cccaagcaga acctgttcag agacaggagc 10920

ggcgaggagc ccgaggagat gcgcgcggcc cggttccacg cggggcggga gctgcggcgc 10980

ggcctggacc gaaagagggt gctgagggac gaggatttcg aggcggacga gctgacgggg 11040

atcagccccg cgcgcgcgca cgtggccgcg gccaacctgg tcacggcgta cgagcagacc 11100

gtgaaggagg agagcaactt ccaaaaatcc ttcaacaacc acgtgcgcac cctgatcgcg 11160

cgcgaggagg tgaccctggg cctgatgcac ctgtgggacc tgctggaggc catcgtgcag 11220

aaccccacca gcaagccgct gacggcgcag ctgttcctgg tggtgcagca tagtcgggac 11280

aacgaagcgt tcagggaggc gctgctgaat atcaccgagc ccgagggccg ctggctcctg 11340

gacctggtga acattctgca gagcatcgtg gtgcaggagc gcgggctgcc gctgtccgag 11400

aagctggcgg ccatcaactt ctcggtgctg agtttgggca agtactacgc taggaagatc 11460

tacaagaccc cgtacgtgcc catagacaag gaggtgaaga tcgacgggtt ttacatgcgc 11520

atgaccctga aagtgctgac cctgagcgac gatctggggg tgtaccgcaa cgacaggatg 11580

caccgtgcgg tgagcgccag caggcggcgc gagctgagcg accaggagct gatgcatagt 11640

ctgcagcggg ccctgaccgg ggccgggacc gaggggggaga gctactttga catgggcgcg 11700

gacctgcact ggcagcccag ccgccgggcc ttggaggcgg cggcaggacc ctacgtagaa 11760

gaggtggacg atgaggtgga cgaggagggc gagtacctgg aagactgatg gcgcgaccgt 11820

atttttgcta gatgcaacaa caacagccac ctcctgatcc cgcgatgcgg gcggcgctgc 11880

agagccagcc gtccggcatt aactcctcgg acgattggac ccaggccatg caacgcatca 11940

tggcgctgac gacccgcaac cccgaagcct ttagacagca gccccaggcc aaccggctct 12000

cggccatcct ggaggccgtg gtgccctcgc gctccaaccc cacgcacgag aaggtcctgg 12060

ccatcgtgaa cgcgctggtg gagaacaagg ccatccgcgg cgacgaggcc ggcctggtgt 12120

acaacgcgct gctggagcgc gtggcccgct acaacagcac caacgtgcag accaacctgg 12180

accgcatggt gaccgacgtg cgcgaggccg tggcccagcg cgagcggttc caccgcgagt 12240

ccaacctggg atccatggtg gcgctgaacg ccttcctcag cacccagccc gccaacgtgc 12300

cccggggcca ggaggactac accaacttca tcagcgccct gcgcctgatg gtgaccgagg 12360

tgccccagag cgaggtgtac cagtccgggc cggactactt cttccagacc agtcgccagg 12420

gcttgcagac cgtgaacctg agccaggctt tcaagaactt gcagggcctg tggggcgtgc 12480

aggccccggt cggggaccgc gcgacggtgt cgagcctgct gacgccgaac tcgcgcctgc 12540

tgctgctgct ggtggccccc ttcacggaca gcggcagcat caaccgcaac tcgtacctgg 12600

gctacctgat taacctgtac cgcgaggcca tcggccaggc gcacgtggac gagcagacct 12660

accaggagat cacccacgtg agccgcgccc tgggccagga cgacccgggc aacctggaag 12720

ccaccctgaa ctttttgctg accaaccggt cgcagaagat cccgccccag tacgcgctca 12780

gcaccgagga ggagcgcatc ctgcgttacg tgcagcagag cgtgggcctg ttcctgatgc 12840

aggagggggc cacccccagc gccgcgctcg acatgaccgc gcgcaacatg gagcccagca 12900

tgtacgccag caaccgcccg ttcatcaata aactgatgga ctacttgcat cgggcggccg 12960

ccatgaactc tgactatttc accaacgcca tcctgaatcc ccactggctc ccgccgccgg 13020

ggttctacac gggcgagtac gacatgcccg accccaatga cgggttcctg tgggacgatg 13080

tggacagcag cgtgttctcc ccccgaccgg gtgctaacga gcgccccttg tggaagaagg 13140

aaggcagcga ccgacgcccg tcctcggcgc tgtccggccg cgagggtgct gccgcggcgg 13200

tgcccgaggc cgccagtcct ttcccgagct tgcccttctc gctgaacagt atccgcagca 13260

gcgagctggg caggatcacg cgcccgcgct tgctgggcga agaggagtac ttgaatgact 13320

cgctgttgag acccgagcgg gagaagaact tccccaataa cgggatagaa agcctggtgg 13380

acaagatgag ccgctggaag acgtatgcgc aggagcacag ggacgatccc cgggcgtcgc 13440

agggggccac gagccggggc agcgccgccc gtaaacgccg gtggcacgac aggcagcggg 13500

gacagatgtg ggacgatgag gactccgccg acgacagcag cgtgttggac ttgggtggga 13560

gtggtaaccc gttcgctcac ctgcgccccc gtatcgggcg catgatgtaa gagaaaccga 13620

aaataaatga tactcaccaa ggccatggcg accagcgtgc gttcgtttct tctctgttgt 13680

tgttgtatct agtatgatga ggcgtgcgta cccggagggt cctcctccct cgtacgagag 13740

cgtgatgcag caggcgatgg cggcggcggc gatgcagccc ccgctggagg ctccttacgt 13800

gcccccgcgg tacctggcgc ctacggaggg gcggaacagc attcgttact cggagctggc 13860

acccttgtac gataccaccc ggttgtacct ggtggacaac aagtcggcgg acatcgcctc 13920

gctgaactac cagaacgacc acagcaactt cctgaccacc gtggtgcaga acaatgactt 13980

caccccacg gaggccagca cccagaccat caactttgac gagcgctcgc ggtggggcgg 14040

ccagctgaaa accatcatgc acaccaacat gcccaacgtg aacgagttca tgtacagcaa 14100

caagttcaag gcgcgggtga tggtctcccg caagaccccc aatggggtga cagtgacaga 14160

ggattatgat ggtagtcagg atgagctgaa gtatgaatgg gtggaatttg agctgcccga 14220

aggcaacttc tcggtgacca tgaccatcga cctgatgaac aacgccatca tcgacaatta 14280

cttggcggtg gggcggcaga acggggtgct ggagagcgac atcggcgtga agttcgacac 14340

taggaacttc aggctgggct gggaccccgt gaccgagctg gtcatgcccg gggtgtacac 14400

caacgaggct ttccatcccg atattgtctt gctgcccggc tgcggggtgg acttcaccga 14460

gagccgcctc agcaacctgc tgggcattcg caagaggcag cccttccagg aaggcttcca 14520

gatcatgtac gaggatctgg agggggggcaa catccccgcg ctcctggatg tcgacgccta 14580

tgagaaaagc aaggaggatg cagcagctga agcaactgca gccgtagcta ccgcctctac 14640

cgaggtcagg ggcgataatt ttgcaagcgc cgcagcagtg gcagcggccg aggcggctga 14700

aaccgaaagt aagatagtca ttcagccggt ggagaaggat agcaagaaca ggagctacaa 14760

cgtactaccg gacaagataa acaccgccta ccgcagctgg tacctagcct acaactatgg 14820

cgaccccgag aagggcgtgc gctcctggac gctgctcacc acctcggacg tcacctgcgg 14880

cgtggagcaa gtctactggt cgctgcccga catgatgcaa gacccggtca ccttccgctc 14940

cacgcgtcaa gttagcaact acccggtggt gggcgccgag ctcctgcccg tctactccaa 15000

gagcttcttc aacgagcagg ccgtctactc gcagcagctg cgcgccttca cctcgcttac 15060

gcacgtcttc aaccgcttcc ccgagaacca gatcctcgtc cgcccgcccg cgcccaccat 15120

taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc cgctgcgcag 15180

cagtatccgg ggagtccagc gcgtgaccgt tactgacgcc agacgccgca cctgccccta 15240

cgtctacaag gccctgggca tagtcgcgcc gcgcgtcctc tcgagccgca ccttctaaat 15300

gtccattctc atctcgccca gtaataacac cggttggggc ctgcgcgcgc ccagcaagat 15360

gtacggaggc gctcgccaac gctccacgca acaccccgtg cgcgtgcgcg ggcacttccg 15420

cgctccctgg ggcgccctca agggccgcgt gcggtcgcgc accaccgtcg acgacgtgat 15480

cgaccaggtg gtggccgacg cgcgcaacta cacccccgcc gccgcgcccg tctccaccgt 15540

ggacgccgtc atcgacagcg tggtggccga cgcgcgccgg tacgcccgcg ccaagagccg 15600

gcggcggcgc atcgcccggc ggcaccggag cacccccgcc atgcgcgcgg cgcgagcctt 15660

gctgcgcagg gccaggcgca cgggacgcag ggccatgctc agggcggcca gacgcgcggc 15720

ttcaggcgcc agcgccggca ggacccggag acgcgcggcc acggcggcgg cagcggccat 15780

cgccagcatg tcccgcccgc ggcgagggaa cgtgtactgg gtgcgcgacg ccgccaccgg 15840

tgtgcgcgtg cccgtgcgca cccgcccccc tcgcacttga agatgttcac ttcgcgatgt 15900

tgatgtgtcc cagcggcgag gaggatgtcc aagcgcaaat tcaaggaaga gatgctccag 15960

gtcatcgcgc ctgagatcta cggccctgcg gtggtgaagg aggaaagaaa gccccgcaaa 16020

atcaagcggg tcaaaaagga caaaaaggaa gaagaaagtg atgtggacgg attggtggag 16080

tttgtgcgcg agttcgcccc ccggcggcgc gtgcagtggc gcgggcggaa ggtgcaaccg 16140

gtgctgagac ccggcaccac cgtggtcttc acgcccggcg agcgctccgg caccgcttcc 16200

aagcgctcct acgacgaggt gtacggggat gatgatattc tggagcaggc ggccgagcgc 16260

ctgggcgagt ttgcttacgg caagcgcagc cgttccgcac cgaaggaaga ggcggtgtcc 16320

atcccgctgg accacggcaa ccccacgccg agcctcaagc ccgtgacctt gcagcaggtg 16380

ctgccgaccg cggcgccgcg ccgggggttc aagcgcgagg gcgaggatct gtaccccacc 16440

atgcagctga tggtgcccaa gcgccagaag ctggaagacg tgctggagac catgaaggtg 16500

gacccggacg tgcagcccga ggtcaaggtg cggcccatca agcaggtggc cccgggcctg 16560

ggcgtgcaga ccgtggacat caagattccc acggagccca tggaaacgca gaccgagccc 16620

atgatcaagc ccagcaccag caccatggag gtgcagacgg atccctggat gccatcggct 16680

cctagtcgaa gaccccggcg caagtacggc gcggccagcc tgctgatgcc caactacgcg 16740

ctgcatcctt ccatcatccc cacgccgggc taccgcggca cgcgcttcta ccgcggtcat 16800

accagcagcc gccgccgcaa gaccaccact cgccgccgcc gtcgccgcac cgccgctgca 16860

accacccctg ccgccctggt gcggagagtg taccgccgcg gccgcgcacc tctgaccctg 16920

ccgcgcgcgc gctaccaccc gagcatcgcc atttaaactt tcgcctgctt tgcagatcaa 16980

tggccctcac atgccgcctt cgcgttccca ttacgggcta ccgaggaaga aaaccgcgcc 17040

gtagaaggct ggcggggaac gggatgcgtc gccaccacca ccggcggcgg cgcgccatca 17100

gcaagcggtt ggggggaggc ttcctgcccg cgctgatccc catcatcgcc gcggcgatcg 17160

gggcgatccc cggcattgct tccgtggcgg tgcaggcctc tcagcgccac tgagacacac 17220

ttggaaacat cttgtaataa accaatggac tctgacgctc ctggtcctgt gatgtgtttt 17280

cgtagacaga tggaagacat caatttttcg tccctggctc cgcgacacgg cacgcggccg 17340

ttcatgggca cctggagcga catcggcacc agccaactga acgggggcgc cttcaattgg 17400

agcagtctct ggagcgggct taagaatttc gggtccacgc ttaaaaccta tggcagcaag 17460

gcgtggaaca gcaccacagg gcaggcgctg agggataagc tgaaagagca gaacttccag 17520

cagaaggtgg tcgatgggct cgcctcgggc atcaacgggg tggtggacct ggccaaccag 17580

gccgtgcagc ggcagatcaa cagccgcctg gacccggtgc cgcccgccgg ctccgtggag 17640

atgccgcagg tggaggagga gctgcctccc ctggacaagc ggggcgagaa gcgaccccgc 17700

cccgatgcgg aggagacgct gctgacgcac acggacgagc cgcccccgta cgaggaggcg 17760

gtgaaactgg gtctgcccac cacgcggccc atcgcgcccc tggccaccgg ggtgctgaaa 17820

cccgaaaagc ccgcgaccct ggacttgcct cctccccagc cttcccgccc ctctacagtg 17880

gctaagcccc tgccgccggt ggccgtggcc cgcgcgcgac ccgggggcac cgcccgccct 17940

catgcgaact ggcagagcac tctgaacagc atcgtgggtc tgggagtgca gagtgtgaag 18000

cgccgccgct gctattaaac ctaccgtagc gcttaacttg cttgtctgtg tgtgtatgta 18060

ttatgtcgcc gccgccgctg tccaccagaa ggaggagtga agaggcgcgt cgccgagttg 18120

caagatggcc accccatcga tgctgcccca gtgggcgtac atgcacatcg ccggacagga 18180

cgcttcggag tacctgagtc cgggtctggt gcagtttgcc cgcgccacag acacctactt 18240

cagtctgggg aacaagttta ggaaccccac ggtggcgccc acgcacgatg tgaccaccga 18300

ccgcagccag cggctgacgc tgcgcttcgt gcccgtggac cgcgaggaca acacctactc 18360

gtacaaagtg cgctacacgc tggccgtggg cgacaaccgc gtgctggaca tggccagcac 18420

ctactttgac atccgcggcg tgctggatcg gggccctagc ttcaaaccct actccggcac 18480

cgcctacaac agtctggccc ccaagggagc acccaacact tgtcagtgga catataaagc 18540

cgatggtgaa actgccacag aaaaaaccta tacatatgga aatgcacccg tgcagggcat 18600

taacatcaca aaagatggta ttcaacttgg aactgacacc gatgatcagc caatctacgc 18660

agataaaacc tatcagcctg aacctcaagt gggtgatgct gaatggcatg acatcactgg 18720

tactgatgaa aagtatggag gcagagctct taagcctgat accaaaatga agccttgtta 18780

tggttctttt gccaagccta ctaataaaga aggaggtcag gcaaatgtga aaacaggaac 18840

aggcactact aaagaatatg acatagacat ggctttcttt gacaacagaa gtgcggctgc 18900

tgctggccta gctccagaaa ttgttttgta tactgaaaat gtggatttgg aaactccaga 18960

tacccatatt gtatacaaag caggcacaga tgacagcagc tcttctatta atttgggtca 19020

gcaagccatg cccaacagac ctaactacat tggtttcaga gacaacttta tcgggctcat 19080

gtactacaac agcactggca atatgggggt gctggccggt caggcttctc agctgaatgc 19140

tgtggttgac ttgcaagaca gaaacaccga gctgtcctac cagctcttgc ttgactctct 19200

gggtgacaga acccggtatt tcagtatgtg gaatcaggcg gtggacagct atgatcctga 19260

tgtgcgcatt attgaaaatc atggtgtgga ggatgaactt cccaactatt gtttccctct 19320

ggatgctgtt ggcagaacag atacttatca gggaattaag gctaatggaa ctgatcaaac 19380

cacatggacc aaagatgaca gtgtcaatga tgctaatgag ataggcaagg gtaatccatt 19440

cgccatggaa atcaacatcc aagccaacct gtggaggaac ttcctctacg ccaacgtggc 19500

cctgtacctg cccgactctt acaagtacac gccggccaat gttaccctgc ccaccaacac 19560

caacacctac gattacatga acggccgggt ggtggcgccc tcgctggtgg actcctacat 19620

caacatcggg gcgcgctggt cgctggatcc catggacaac gtgaacccct tcaaccacca 19680

ccgcaatgcg gggctgcgct accgctccat gctcctgggc aacgggcgct acgtgccctt 19740

ccacatccag gtgccccaga aatttttcgc catcaagagc ctcctgctcc tgcccgggtc 19800

ctacacctac gagtggaact tccgcaagga cgtcaacatg atcctgcaga gctccctcgg 19860

caacgacctg cgcacggacg gggcctccat ctccttcacc agcatcaacc tctacgccac 19920

cttcttcccc atggcgcaca acacggcctc cacgctcgag gccatgctgc gcaacgacac 19980

caacgaccag tccttcaacg actacctctc ggcggccaac atgctctacc ccatcccggc 20040

caacgccacc aacgtgccca tctccatccc ctcgcgcaac tgggccgcct tccgcggctg 20100

gtccttcacg cgtctcaaga ccaaggagac gccctcgctg ggctccgggt tcgaccccta 20160

cttcgtctac tcgggctcca tcccctacct cgacggcacc ttctacctca accacacctt 20220

caagaaggtc tccatcacct tcgactcctc cgtcagctgg cccggcaacg accggctcct 20280

gacgcccaac gagttcgaaa tcaagcgcac cgtcgacggc gagggctaca acgtggccca 20340

gtgcaacatg accaaggact ggttcctggt ccagatgctg gcccactaca acatcggcta 20400

ccagggcttc tacgtgcccg agggctacaa ggaccgcatg tactccttct tccgcaactt 20460

ccagcccatg agccgccagg tggtggacga ggtcaactac aaggactacc aggccgtcac 20520

cctggcctac cagcacaaca actcgggctt cgtcggctac ctcgcgccca ccatgcgcca 20580

gggccagccc taccccgcca actaccccta cccgctcatc ggcaagagcg ccgtcaccag 20640

cgtcacccag aaaaagttcc tctgcgacag ggtcatgtgg cgcatcccct tctccagcaa 20700

cttcatgtcc atgggcgcgc tcaccgacct cggccagaac atgctctatg ccaactccgc 20760

ccacgcgcta gacatgaatt tcgaagtcga ccccatggat gagtccaccc ttctctatgt 20820

tgtcttcgaa gtcttcgacg tcgtccgagt gcaccagccc caccgcggcg tcatcgaggc 20880

cgtctacctg cgcaccccct tctcggccgg taacgccacc acctaagctc ttgcttcttg 20940

caagccatgg ccgcgggctc cggcgagcag gagctcaggg ccatcatccg cgacctgggc 21000

tgcgggccct acttcctggg caccttcgat aagcgcttcc cgggattcat ggccccgcac 21060

aagctggcct gcgccatcgt caacacggcc ggccgcgaga ccgggggcga gcactggctg 21120

gccttcgcct ggaacccgcg ctcgaacacc tgctacctct tcgacccctt cgggttctcg 21180

gacgagcgcc tcaagcagat ctaccagttc gagtacgagg gcctgctgcg ccgcagcgcc 21240

ctggccaccg aggaccgctg cgtcaccctg gaaaagtcca cccagaccgt gcagggtccg 21300

cgctcggccg cctgcgggct cttctgctgc atgttcctgc acgccttcgt gcactggccc 21360

gaccgcccca tggacaagaa ccccaccatg aacttgctga cgggggtgcc caacggcatg 21420

ctccagtcgc cccaggtgga acccaccctg cgccgcaacc aggaggcgct ctaccgcttc 21480

ctcaactccc actccgccta ctttcgctcc caccgcgcgc gcatcgagaa ggccaccgcc 21540

ttcgaccgca tgaatcaaga catgtaaacc gtgtgtgtat gttaaatgtc tttaataaac 21600

agcactttca tgttacacat gcatctgaga tgatttattt agaaatcgaa agggttctgc 21660

cgggtctcgg catggcccgc gggcagggac acgttgcgga actggtactt ggccagccac 21720

ttgaactcgg ggatcagcag tttgggcagc ggggtgtcgg ggaaggagtc ggtccacagc 21780

ttccgcgtca gttgcagggc gcccagcagg tcgggcgcgg agatcttgaa atcgcagttg 21840

ggacccgcgt tctgcgcgcg ggagttgcgg tacacggggt tgcagcactg gaacaccatc 21900

agggccgggt gcttcacgct cgccagcacc gtcgcgtcgg tgatgctctc cacgtcgagg 21960

tcctcggcgt tggccatccc gaaggggggtc atcttgcagg tctgccttcc catggtgggc 22020

acgcacccgg gcttgtggtt gcaatcgcag tgcaggggga tcagcatcat ctgggcctgg 22080

tcggcgttca tccccgggta catggccttc atgaaagcct ccaattgcct gaacgcctgc 22140

tgggccttgg ctccctcggt gaagaagacc ccgcaggact tgctagagaa ctggttggtg 22200

gcgcacccgg cgtcgtgcac gcagcagcgc gcgtcgttgt tggccagctg caccacgctg 22260

cgcccccagc ggttctgggt gatcttggcc cggtcggggt tctccttcag cgcgcgctgc 22320

ccgttctcgc tcgccacatc catctcgatc atgtgctcct tctggatcat ggtggtcccg 22380

tgcaggcacc gcagcttgcc ctcggcctcg gtgcacccgt gcagccacag cgcgcacccg 22440

gtgcactccc agttcttgtg ggcgatctgg gaatgcgcgt gcacgaagcc ctgcaggaag 22500

cggcccatca tggtggtcag ggtcttgttg ctagtgaagg tcagcggaat gccgcggtgc 22560

tcctcgttga tgtacaggtg gcagatgcgg cggtacacct cgccctgctc gggcatcagc 22620

tggaagttgg ctttcaggtc ggtctccacg cggtagcggt ccatcagcat agtcatgatt 22680

tccataccct tctcccaggc cgagacgatg ggcaggctca tagggttctt caccatcatc 22740

ttagcgctag cagccgcggc caggggggtcg ctctcgtcca gggtctcaaa gctccgcttg 22800

ccgtccttct cggtgatccg caccgggggg tagctgaagc ccacggccgc cagctcctcc 22860

tcggcctgtc tttcgtcctc gctgtcctgg ctgacgtcct gcaggaccac atgcttggtc 22920

ttgcggggtt tcttcttggg cggcagcggc ggcggagatg ttggagatgg cgagggggag 22980

cgcgagttct cgctcaccac tactatctct tcctcttctt ggtccgaggc cacgcggcgg 23040

taggtatgtc tcttcggggg cagaggcgga ggcgacgggc tctcgccgcc gcgacttggc 23100

ggatggctgg cagagccccct tccgcgttcg ggggtgcgct cccggcggcg ctctgactga 23160

cttcctccgc ggccggccat tgtgttctcc tagggaggaa caacaagcat ggagactcag 23220

ccatcgccaa cctcgccatc tgcccccacc gccgacgaga agcagcagca gcagaatgaa 23280

agcttaaccg ccccgccgcc cagccccgcc acctccgacg cggccgtccc agacatgcaa 23340

gagatggagg aatccatcga gattgacctg ggctatgtga cgcccgcgga gcacgaggag 23400

gagctggcag tgcgcttttc acaagaagag atacaccaag aacagccaga gcaggaagca 23460

gagaatgagc agagtcaggc tgggctcgag catgacggcg actacctcca cctgagcggg 23520

ggggaggacg cgctcatcaa gcatctggcc cggcaggcca ccatcgtcaa ggatgcgctg 23580

ctcgaccgca ccgaggtgcc cctcagcgtg gaggagctca gccgcgccta cgagttgaac 23640

ctcttctcgc cgcgcgtgcc ccccaagcgc cagcccaatg gcacctgcga gcccaacccg 23700

cgcctcaact tctacccggt cttcgcggtg cccgaggccc tggccaccta ccacatcttt 23760

ttcaagaacc aaaagatccc cgtctcctgc cgcgccaacc gcacccgcgc cgacgccctt 23820

ttcaacctgg gtcccggcgc ccgcctacct gatatcgcct ccttggaaga ggttcccaag 23880

atcttcgagg gtctgggcag cgacgagact cgggccgcga acgctctgca aggagaagga 23940

ggagagcatg agcaccacag cgccctggtc gagttggaag gcgacaacgc gcggctggcg 24000

gtgctcaaac gcacggtcga gctgacccat ttcgcctacc cggctctgaa cctgcccccc 24060

aaagtcatga gcgcggtcat ggaccaggtg ctcatcaagc gcgcgtcgcc catctccgag 24120

gacgagggca tgcaagactc cgaggagggc aagcccgtgg tcagcgacga gcagctggcc 24180

cggtggctgg gtcctaatgc tagtccccag agtttggaag agcggcgcaa actcatgatg 24240

gccgtggtcc tggtgaccgt ggagctggag tgcctgcgcc gcttcttcgc cgacgcggag 24300

accctgcgca aggtcgagga gaacctgcac tacctcttca ggcacgggtt cgtgcgccag 24360

gcctgcaaga tctccaacgt ggagctgacc aacctggtct cctacatggg catcttgcac 24420

gagaaccgcc tggggcagaa cgtgctgcac accaccctgc gcggggaggc ccggcgcgac 24480

tacatccgcg actgcgtcta cctctacctc tgccacacct ggcagacggg catgggcgtg 24540

tggcagcagt gtctggagga gcagaacctg aaagagctct gcaagctcct gcagaagaac 24600

ctcaagggtc tgtggaccgg gttcgacgag cgcaccaccg cctcggacct ggccgacctc 24660

attttccccg agcgcctcag gctgacgctg cgcaacggcc tgcccgactt tatgagccaa 24720

agcatgttgc aaaactttcg ctctttcatc ctcgaacgct ccggaatcct gcccgccacc 24780

tgctccgcgc tgccctcgga cttcgtgccg ctgaccttcc gcgagtgccc cccgccgctg 24840

tggagccact gctacctgct gcgcctggcc aactacctgg cctaccactc ggacgtgatc 24900

gaggacgtca gcggcgaggg cctgctcgag tgccactgcc gctgcaacct ctgcacgccg 24960

caccgctccc tggcctgcaa cccccagctg ctgagcgaga cccagatcat cggcaccttc 25020

gagttgcaag ggcccagcga aggcgagggt tcagccgcca agggggggtct gaaactcacc 25080

ccggggctgt ggacctcggc ctacttgcgc aagttcgtgc ccgaggacta ccatcccttc 25140

gagatcaggt tctacgagga ccaatcccat ccgcccaagg ccgagctgtc ggcctgcgtc 25200

atcacccagg gggcgatcct ggcccaattg caagccatcc agaaatcccg ccaagaattc 25260

ttgctgaaaa agggccgcgg ggtctacctc gacccccaga ccggtgagga gctcaacccc 25320

ggcttccccc aggatgcccc gaggaaacaa gaagctgaaa gtggagctgc cgcccgtgga 25380

ggatttggag gaagactggg agaacagcag tcaggcagag gaggaggaga tggaggaaga 25440

ctgggacagc actcaggcag aggaggacag cctgcaagac agtctggagg aagacgagga 25500

ggaggcagag gaggaggtgg aagaagcagc cgccgccaga ccgtcgtcct cggcgggga 25560

gaaagcaagc agcacggata ccatctccgc tccgggtcgg ggtcccgctc gaccacacag 25620

tagatgggac gagaccggac gattcccgaa ccccaccacc cagaccggta agaaggagcg 25680

gcagggatac aagtcctggc gggggcacaa aaacgccatc gtctcctgct tgcaggcctg 25740

cgggggcaac atctccttca cccggcgcta cctgctcttc caccgcgggg tgaactttcc 25800

ccgcaacatc ttgcattact accgtcacct ccacagcccc tactacttcc aagaagaggc 25860

agcagcagca gaaaaagacc agcagaaaac cagcagctag aaaatccaca gcggcggcag 25920

caggtggact gaggatcgcg gcgaacgagc cggcgcaaac ccgggagctg aggaaccgga 25980

tctttcccac cctctatgcc atcttccagc agagtcgggg gcaggagcag gaactgaaag 26040

tcaagaaccg ttctctgcgc tcgctcaccc gcagttgtct gtatcacaag agcgaagacc 26100

aacttcagcg cactctcgag gacgccgagg ctctcttcaa caagtactgc gcgctcactc 26160

ttaaagagta gcccgcgccc gcccagtcgc agaaaaaggc gggaattacg tcacctgtgc 26220

ccttcgccct agccgcctcc acccatcatc atgagcaaag agattcccac gccttacatg 26280

tggagctacc agccccagat gggcctggcc gccggtgccg cccaggacta ctccacccgc 26340

atgaattggc tcagcgccgg gcccgcgatg atctcacggg tgaatgacat ccgcgcccac 26400

cgaaaccaga tactcctaga acagtcagcg ctcaccgcca cgccccgcaa tcacctcaat 26460

ccgcgtaatt ggcccgccgc cctggtgtac caggaaattc cccagcccac gaccgtacta 26520

cttccgcgag acgcccaggc cgaagtccag ctgactaact caggtgtcca gctggcgggc 26580

ggcgccaccc tgtgtcgtca ccgccccgct cagggtataa agcggctggt gatccggggc 26640

agaggcacac agctcaacga cgaggtggtg agctcttcgc tgggtctgcg acctgacgga 26700

gtcttccaac tcgccggatc ggggagatct tccttcacgc ctcgtcaggc cgtcctgact 26760

ttggagagtt cgtcctcgca gccccgctcg ggtggcatcg gcactctcca gttcgtggag 26820

gagttcactc cctcggtcta cttcaacccc ttctccggct cccccggcca ctacccggac 26880

gagttcatcc cgaacttcga cgccatcagc gagtcggtgg acggctacga ttgaaactaa 26940

tcacccccct atccagtgaa ataaagatca tattgatgat gattttacag aaataaaaaa 27000

taatcatttg atttgaaata aagatacaat catattgatg atttgagttt aacaaaaaaa 27060

taaagaatca cttacttgaa atctgatacc aggtctctgt ccatgttttc tgccaacacc 27120

acttcactcc cctcttccca gctctggtac tgcaggcccc ggcgggctgc aaacttcctc 27180

cacacgctga aggggatgtc aaattcctcc tgtccctcaa tcttcatttt atcttctatc 27240

agatgtccaa aaagcgcgtc cgggtggatg atgacttcga ccccgtctac ccctacgatg 27300

cagacaacgc accgaccgtg cccttcatca acccccccct cgtctcttca gatggattcc 27360

aagagaagcc cctgggggtg ttgtccctgc gactggccga ccccgtcacc accaagaacg 27420

gggaaatcac cctcaagctg ggagaggggg tggacctcga ttcctcggga aaactcatct 27480

ccaacacggc caccaaggcc gccgcccctc tcagtttttc caacaacacc atttccctta 27540

acatggatca ccccttttac actaaagatg gaaaattatc cttacaagtt tctccaccat 27600

taaatatact gagaacaagc attctaaaca cactagcttt aggttttgga tcaggtttag 27660

gactccgtgg ctctgccttg gcagtacagt tagtctctcc acttacattt gatactgatg 27720

gaaacataaa gcttacctta gacagaggtt tgcatgttac aacaggagat gcaattgaaa 27780

gcaacataag ctgggctaaa ggtttaaaat ttgaagatgg agccatagca accaacattg 27840

gaaatgggtt agagtttgga agcagtagta cagaaacagg tgttgatgat gcttacccaa 27900

tccaagttaa acttggatct ggccttagct ttgacagtac aggagccata atggctggta 27960

acaaagaaga cgataaactc actttgtgga caacacctga tccatcacca aactgtcaaa 28020

tactcgcaga aaatgatgca aaactaacac tttgcttgac taaatgtggt agtcaaatac 28080

tggccactgt gtcagtctta gttgtaggaa gtggaaacct aaaccccatt actggcaccg 28140

taagcagtgc tcaggtgttt ctacgttttg atgcaaacgg tgttctttta acagaacatt 28200

ctacactaaa aaaatactgg gggtataggc agggagatag catagatggc actccatata 28260

ccaatgctgt aggattcatg cccaatttaa aagcttatcc aaagtcacaa agttctacta 28320

ctaaaaataa tatagtaggg caagtataca tgaatggaga tgtttcaaaa cctatgcttc 28380

tcactataac cctcaatggt actgatgaca gcaacagtac atattcaatg tcattttcat 28440

acacctggac taatggaagc tatgttggag caacatttgg ggctaactct tataccttct 28500

catacatcgc ccaagaatga acactgtatc ccaccctgca tgccaaccct tcccacccca 28560

ctctgtggaa caaactctga aacacaaaat aaaataaagt tcaagtgttt tattgattca 28620

acagttttac aggattcgag cagttatttt tcctccaccc tcccaggaca tggaatacac 28680

caccctctcc ccccgcacag ccttgaacat ctgaatgcca ttggtgatgg acatgctttt 28740

ggtctccacg ttccacacag tttcagagcg agccagtctc gggtcggtca gggagatgaa 28800

accctccggg cactcccgca tctgcacctc acagctcaac agctgaggat tgtcctcggt 28860

ggtcgggatc acggttatct ggaagaagca gaagagcggc ggtgggaatc atagtccgcg 28920

aacgggatcg gccggtggtg tcgcatcagg ccccgcagca gtcgctgccg ccgccgctcc 28980

gtcaagctgc tgctcagggg gtccgggtcc agggactccc tcagcatgat gcccacggcc 29040

ctcagcatca gtcgtctggt gcggcgggcg cagcagcgca tgcggatctc gctcaggtcg 29100

ctgcagtacg tgcaacacag aaccaccagg ttgttcaaca gtccatagtt caacacgctc 29160

cagccgaaac tcatcgcggg aaggatgcta cccacgtggc cgtcgtacca gatcctcagg 29220

taaatcaagt ggtgcccccc ccagaacacg ctgcccacgt acatgatctc cttgggcatg 29280

tggcggttca ccacctcccg gtaccacatc accctctggt tgaacatgca gccccggatg 29340

atcctgcgga accacagggc cagcaccgcc ccgcccgcca tgcagcgaag agaccccggg 29400

tcccggcaat ggcaatggag gacccaccgc tcgtacccgt ggatcatctg ggagctgaac 29460

aagtctatgt tggcacagca caggcatatg ctcatgcatc tcttcagcac tctcaactcc 29520

tcgggggtca aaaccatatc ccagggcacg gggaactctt gcaggacagc gaaccccgca 29580

gaacagggca atcctcgcac agaacttaca ttgtgcatgg acagggtatc gcaatcaggc 29640

agcaccgggt gatcctccac cagagaagcg cgggtctcgg tctcctcaca gcgtggtaag 29700

ggggccggcc gatacgggtg atggcgggac gcggctgatc gtgttcgcga ccgtgtcatg 29760

atgcagttgc tttcggacat tttcgtactt gctgtagcag aacctggtcc gggcgctgca 29820

caccgatcgc cggcggcggt ctcggcgctt ggaacgctcg gtgttgaaat tgtaaaacag 29880

ccactctctc agaccgtgca gcagatctag ggcctcagga gtgatgaaga tcccatcatg 29940

cctgatggct ctgatcacat cgaccaccgt ggaatgggcc agacccagcc agatgatgca 30000

attttgttgg gtttcggtga cggcgggga gggaagaaca ggaagaacca tgattaactt 30060

ttaatccaaa cggtctcgga gtacttcaaa atgaagatcg cggagatggc acctctcgcc 30120

cccgctgtgt tggtggaaaa taacagccag gtcaaaggtg atacggttct cgagatgttc 30180

cacggtggct tccagcaaag cctccacgcg cacatccaga aacaagacaa tagcgaaagc 30240

gggagggttc tctaattcct caatcatcat gttacactcc tgcaccatcc ccagataatt 30300

ttcatttttc cagccttgaa tgattcgaac tagttcctga ggtaaatcca agccagccat 30360

gataaagagc tcgcgcagag cgccctccac cggcattctt aagcacaccc tcataattcc 30420

aagatattct gctcctggtt cacctgcagc agattgacaa gcggaatatc aaaatctctg 30480

ccgcgatccc tgagctcctc cctcagcaat aactgtaagt actctttcat atcctctccg 30540

aaatttttag ccataggacc accaggaata agattagggc aagccacagt acagataaac 30600

cgaagtcctc cccagtgagc attgccaaat gcaagactgc tataagcatg ctggctagac 30660

ccggtgatat cttccagata actggacaga aaatcgccca ggcaattttt aagaaaatca 30720

acaaaagaaa aatcctccag gtggacgttt agagcctcgg gaacaacgat gaagtaaatg 30780

caagcggtgc gttccagcat ggttagttag ctgatctgta gaaaaaacaa aaatgaacat 30840

taaaccatgc tagcctggcg aacaggtggg taaatcgttc tctccagcac caggcaggcc 30900

acggggtctc cggcgcgacc ctcgtaaaaa ttgtcgctat gattgaaaac catcacagag 30960

agacgttccc ggtggccggc gtgaatgatt cgacaagatg aatacacccc cggaacattg 31020

gcgtccgcga gtgaaaaaaa gcgcccgagg aagcaataag gcactacaat gctcagtctc 31080

aagtccagca aagcgatgcc atgcggatga agcacaaaat tctcaggtgc gtacaaaatg 31140

taattactcc cctcctgcac aggcagcaaa gcccccgatc cctccaggta cacatacaaa 31200

gcctcagcgt ccatagctta ccgagcagca gcacacaaca ggcgcaagag tcagagaaag 31260

gctgagctct aacctgtcca cccgctctct gctcaatata tagcccagat ctacactgac 31320

gtaaaggcca aagtctaaaa atacccgcca aataatcaca cacgcccagc acacgcccag 31380

aaaccggtga cacactcaaa aaaatacgcg cacttcctca aacgcccaaa actgccgtca 31440

tttccgggtt cccacgctac gtcatcaaaa cacgactttc aaattccgtc gaccgttaaa 31500

aacgtcaccc gccccgcccc taacggtcgc ccgtctctca gccaatcagc gccccgcatc 31560

cccaaattca aacacctcat ttgcatatta acgcgcacaa aaagtttgag gtatattatt 31620

gatgatg 31627

<210> 67
<211> 31427
<212> DNA
<213> Artificial Sequence

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

<400> 67
ccatcttcaa taatatacct caaacttttt gtgcgcgtta atatgcaaat gaggcgtttg 60

aatttgggga ggaagggcgg tgattggtcg agggatgagc gaccgttagg ggcggggcga 120

gtgacgtttt gatgacgtgg ttgcgaggag gagccagttt gcaagttctc gtgggaaaag 180

tgacgtcaaa cgaggtgtgg tttgaacacg gaaatactca attttcccgc gctctctgac 240

aggaaatgag gtgtttctgg gcggatgcaa gtgaaaacgg gccattttcg cgcgaaaact 300

gaatgaggaa gtgaaaatct gagtaatttc gcgtttatgg cagggaggag tatttgccga 360

gggccgagta gactttgacc gattacgtgg gggtttcgat taccgtgttt ttcacctaaa 420

tttccgcgta cggtgtcaaa gtccggtgtt tttacgtagg tgtcagctga tcgccagggt 480

atttaaacct gcgctctcca gtcaagaggc cactcttgag tgccagcgag aagagttttc 540

tcctccgcgc cgcgagtcag atctacactt tgaaagtagg gataacaggg taatccatgt 600

tgacattgat tattgactag ttattaaagt acttccctat cagtgataga gaaaagtgaa 660

agtcgagttt accactccct atcagtgata gagaaaagtg aaagtcgagt ttaccactcc 720

ctatcagtga tagagaaaag tgaaagtcga gtttaccact ccctatcagt gatagagaaa 780

agtgaaagtc gagtttacca ctccctatca gtgatagaga aaagtgaaag tcgagtttac 840

cactccctat cagtgataga gaaaagtgaa agtcgagttt accactccct atcagtgata 900

gagaaaagtg aaagtcgagc tcggtacccg ggtcgaggta ggcgtgtacg gtgggaggcc 960

tatataagca gagctcgttt agtgaaccgt cagatcgcct ggagacgcca tccacgctgt 1020

tttgacctcc atagaagaca gcgatcgcgc caccatggct ggcatgaccg agtacaagct 1080

agtcgttgtg ggagctggag atgtgggcaa atctgctctg accattcagc tgattcaggg 1140

cacagatctg gatcaccagg agaagtgtct gagcaggctg tacgaccaca tgccagaagg 1200

attaacccct cttatgggag tgagctcttc ttctgctctg gccagactgg gactgcctat 1260

ggataagctg aacaagatca cagctcctgc ctctcagaaa ctgagacagc tgcagaagat 1320

ggagacccct gaactgctgc cttgtggata tctggtggag gagaatacca caatcagcgt 1380

gaccgtgaaa ggcctggaag cccagaacaa gatcaaaggc tgtaccggct ctgtgaatat 1440

gacactgcag agagcttctg ccgcccctaa gacaggagga ggaggagaag ctgctgccta 1500

caataataca ttagtggcca gacatgtgcc ccagatccct aagcctgaca gcctggttgg 1560

cctgagcgat gaattaggaa aaagagacac atttgccgag agcctgatcc ggagaatggc 1620

ctctgccggc tacctgttcc tggatatcat cacatatgtt gtgtttgccg tgaccttcgt 1680

gctgggagtt ctgggcggcc tgaataccga gaccaatgaa aaagctcttg aagccgtgtt 1740

tggcaagtac ggcagaatcg tggaggtgct gggcggcaga tcttgtgaag aattaacagc 1800

tgtgttacca cctcctcagc tgcttggcag acggttcaac ttcttcagct acagctacgt 1860

tgctgctggc tcttctggca acaactacga cctgatggcc cagcctatta cacctggacc 1920

tgatacaaca cctctgcctg tgaccgatac atcttctgtg tctaccggac acgccacatc 1980

tctgccagtg acagatgctg gactgagagt gacagagtct aaaggacaca gcgattcttg 2040

gcacctgagc ctggatacag ccatcagggt gaatacccct aagctggttt ctgaagtgga 2100

agagctgaac aagagcatca ccgccctgag ggagaagtta ctgcagatgg tggaagccga 2160

tagacctgga aacctgttta ttggaggcct gaacaccgag accaatgagg actctcccgt 2220

gaaggatgaa gtggtggtga acgatcaatg gggccagaat tgtagctgcc atcatggagg 2280

ctacgagttc cctgatctgc acaggacaat cgtgtctgag tgcgatgtgt atctgaccta 2340

catgctgaga caggctgctc tgcagctgtt cttcgacctg tatcacagca tccctagcag 2400

cttttctcct ctggttctga gctgtctggt gcagcctctg gaagatgtgg aagtgatgga 2460

gaaggatggc acaaccttta gctgtgaggt gagccacgat gaggtgcctc ggacatatgg 2520

acccgtgttt atgtgtctgg gaggactgct gaccatggtg gctggagctg tttggctgac 2580

agttggaccc ggaccaggcg ccaaatttgt tgctgcttgg acactgaaag ctgctgctgg 2640

gcccggacca ggccagtaca tcaaggccaa ctctaagttt atcggcatca ccgaattggg 2700

acctggaccc ggctagtagt gagtttaaac tcccatttaa atgtgagggt taatgcttcg 2760

agcagacatg ataagataca ttgatgagtt tggacaaacc acaactagaa tgcagtgaaa 2820

aaaatgcttt atttgtgaaa tttgtgatgc tattgcttta tttgtaacca ttataagctg 2880

caataaacaa gttaacaaca acaattgcat tcattttatg tttcaggttc agggggagat 2940

gtgggaggtt ttttaaagca agtaaaacct ctacaaatgt ggtaaaataa ctataacggt 3000

cctaaggtag cgagtgagta gtgttctggg gcgggggagg acctgcatga gggccagaat 3060

aactgaaatc tgtgcttttc tgtgtgttgc agcagcatga gcggaagcgg ctcctttgag 3120

ggaggggtat tcagcccttа tctgacgggg cgtctcccct cctgggcggg agtgcgtcag 3180

aatgtgatgg gatccacggt ggacggccgg cccgtgcagc ccgcgaactc ttcaaccctg 3240

acctatgcaa ccctgagctc ttcgtcgttg gacgcagctg ccgccgcagc tgctgcatct 3300

gccgccagcg ccgtgcgcgg aatggccatg ggcgccggct actacggcac tctggtggcc 3360

aactcgagtt ccaccaataa tcccgccagc ctgaacgagg agaagctgtt gctgctgatg 3420

gcccagctcg aggccttgac ccagcgcctg ggcgagctga cccagcaggt ggctcagctg 3480

caggagcaga cgcgggccgc ggttgccacg gtgaaatcca aataaaaaat gaatcaataa 3540

ataaacggag acggttgttg attttaacac agagtctgaa tctttatttg atttttcgcg 3600

cgcggtaggc cctggaccac cggtctcgat cattgagcac ccggtggatc ttttccagga 3660

cccggtagag gtgggcttgg atgttgaggt acatgggcat gagcccgtcc cgggggtgga 3720

ggtagctcca ttgcagggcc tcgtgctcgg gggtggtgtt gtaaatcacc cagtcatagc 3780

aggggcgcag ggcatggtgt tgcacaatat ctttgaggag gagactgatg gccacgggca 3840

gccctttggt gtaggtgttt acaaatctgt tgagctggga gggatgcatg cgggggggaga 3900

tgaggtgcat cttggcctgg atcttgagat tggcgatgtt accgcccaga tcccgcctgg 3960

ggttcatgtt gtgcaggacc accagcacgg tgtatccggt gcacttgggg aatttatcat 4020

gcaacttgga agggaaggcg tgaaagaatt tggcgacgcc tttgtgcccg cccaggtttt 4080

ccatgcactc atccatgatg atggcgatgg gcccgtgggc ggcggcctgg gcaaagacgt 4140

ttcgggggtc ggacacatca tagttgtggt cctgggtgag gtcatcatag gccattttaa 4200

tgaatttggg gcggagggtg ccggactggg ggacaaaggt accctcgatc ccgggggcgt 4260

agttcccctc acagatctgc atctcccagg ctttgagctc ggaggggggg atcatgtcca 4320

cctgcggggc gataaagaac acggtttccg gggcggggga gatgagctgg gccgaaagca 4380

agttccggag cagctgggac ttgccgcagc cggtggggcc gtagatgacc ccgatgaccg 4440

gctgcaggtg gtagttgagg gagagacagc tgccgtcctc ccggaggagg ggggccacct 4500

cgttcatcat ctcgcgcacg tgcatgttct cgcgcaccag ttccgccagg aggcgctctc 4560

cccccaggga taggagctcc tggagcgagg cgaagttttt cagcggcttg agtccgtcgg 4620

ccatgggcat tttggagagg gtttgttgca agagttccag gcggtcccag agctcggtga 4680

tgtgctctac ggcatctcga tccagcagac ctcctcgttt cgcgggttgg gacggctgcg 4740

ggagtagggc accagacgat gggcgtccag cgcagccagg gtccggtcct tccagggtcg 4800

cagcgtccgc gtcagggtgg tctccgtcac ggtgaagggg tgcgcgccgg gctgggcgct 4860

tgcgagggtg cgcttcaggc tcatccggct ggtcgaaaac cgctcccgat cggcgccctg 4920

cgcgtcggcc aggtagcaat tgaccatgag ttcgtagttg agcgcctcgg ccgcgtggcc 4980

tttggcgcgg agcttacctt tggaagtctg cccgcaggcg ggacagagga gggacttgag 5040

ggcgtagagc ttgggggcga ggaagacgga ctcgggggcg taggcgtccg cgccgcagtg 5100

ggcgcagacg gtctcgcact ccacgagcca ggtgaggtcg ggctggtcgg ggtcaaaaac 5160

cagtttcccg ccgttctttt tgatgcgttt cttacctttg gtctccatga gctcgtgtcc 5220

ccgctgggtg acaaagaggc tgtccgtgtc cccgtagacc gactttatgg gccggtcctc 5280

gagcggtgtg ccgcggtcct cctcgtagag gaaccccgcc cactccgaga cgaaagcccg 5340

ggtccaggcc agcacgaagg aggccacgtg ggacgggtag cggtcgttgt ccaccagcgg 5400

gtccaccttt tccagggtat gcaaacacat gtccccctcg tccacatcca ggaaggtgat 5460

tggcttgtaa gtgtaggcca cgtgaccggg ggtcccggcc gggggggtat aaaagggtgc 5520

gggtccctgc tcgtcctcac tgtcttccgg atcgctgtcc aggagcgcca gctgttgggg 5580

taggtattcc ctctcgaagg cgggcatgac ctcggcactc aggttgtcag tttctagaaa 5640

cgaggaggat ttgatattga cggtgccggc ggagatgcct ttcaagagcc cctcgtccat 5700

ctggtcagaa aagacgatct ttttgttgtc gagcttggtg gcgaaggagc cgtagagggc 5760

gttggagagg agcttggcga tggagcgcat ggtctggttt ttttccttgt cggcgcgctc 5820

cttggcggcg atgttgagct gcacgtactc gcgcgccacg cacttccatt cggggaagac 5880

ggtggtcagc tcgtcgggca cgattctgac ctgccagccc cgattatgca gggtgatgag 5940

gtccacactg gtggccacct cgccgcgcag gggctcatta gtccagcaga ggcgtccgcc 6000

cttgcgcgag cagaaggggg gcaggggGtc cagcatgacc tcgtcggggg ggtcggcatc 6060

gatggtgaag atgccgggca ggaggtcggg gtcaaagtag ctgatggaag tggccagatc 6120

gtccagggca gcttgccatt cgcgcacggc cagcgcgcgc tcgtagggac tgaggggcgt 6180

gccccagggc atgggatggg taagcgcgga ggcgtacatg ccgcagatgt cgtagacgta 6240

gaggggctcc tcgaggatgc cgatgtaggt ggggtagcag cgcccccgc ggatgctggc 6300

gcgcacgtag tcatacagct cgtgcgaggg ggcgaggagc cccgggccca ggttggtgcg 6360

actgggcttt tcggcgcggt agacgatctg gcggaaaatg gcatgcgagt tggaggagat 6420

ggtgggcctt tggaagatgt tgaagtgggc gtggggcagt ccgaccgagt cgcggatgaa 6480

gtgggcgtag gagtcttgca gcttggcgac gagctcggcg gtgactagga cgtccagagc 6540

gcagtagtcg agggtctcct ggatgatgtc atacttgagc tgtccctttt gtttccacag 6600

ctcgcggttg agaaggaact cttcgcggtc cttccagtac tcttcgaggg ggaacccgtc 6660

ctgatctgca cggtaagagc ctagcatgta gaactggttg acggccttgt aggcgcagca 6720

gcccttctcc acggggaggg cgtaggcctg ggcggccttg cgcagggagg tgtgcgtgag 6780

ggcgaaagtg tccctgacca tgaccttgag gaactggtgc ttgaagtcga tatcgtcgca 6840

gccccccctgc tcccagagct ggaagtccgt gcgcttcttg taggcggggt tgggcaaagc 6900

gaaagtaaca tcgttgaaga ggatcttgcc cgcgcggggc ataaagttgc gagtgatgcg 6960

gaaaggttgg ggcacctcgg cccggttgtt gatgacctgg gcggcgagca cgatctcgtc 7020

gaagccgttg atgttgtggc ccacgatgta gagttccacg aatcgcggac ggcccttgac 7080

gtggggcagt ttcttgagct cctcgtaggt gagctcgtcg gggtcgctga gcccgtgctg 7140

ctcgagcgcc cagtcggcga gatgggggtt ggcgcggagg aaggaagtcc agagatccac 7200

ggccagggcg gtttgcagac ggtcccggta ctgacggaac tgctgcccga cggccatttt 7260

ttcgggggtg acgcagtaga aggtgcgggg gtccccgtgc cagcgatccc atttgagctg 7320

gagggcgaga tcgagggcga gctcgacgag ccggtcgtcc ccggagagtt tcatgaccag 7380

catgaagggg acgagctgct tgccgaagga ccccatccag gtgtaggttt ccacatcgta 7440

ggtgaggaag agcctttcgg tgcgaggatg cgagccgatg gggaagaact ggatctcctg 7500

ccaccaattg gaggaatggc tgttgatgtg atggaagtag aaatgccgac ggcgcgccga 7560

acactcgtgc ttgtgtttat acaagcggcc acagtgctcg caacgctgca cgggatgcac 7620

gtgctgcacg agctgtacct gagttccttt gacgaggaat ttcagtggga agtggagtcg 7680

tggcgcctgc atctcgtgct gtactacgtc gtggtggtcg gcctggccct cttctgcctc 7740

gatggtggtc atgctgacga gcccgcgcgg gaggcaggtc cagacctcgg cgcgagcggg 7800

tcggagagcg aggacgaggg cgcgcaggcc ggagctgtcc agggtcctga gacgctgcgg 7860

agtcaggtca gtgggcagcg gcggcgcgcg gttgacttgc aggagttttt ccagggcgcg 7920

cgggaggtcc agatggtact tgatctccac cgcgccattg gtggcgacgt cgatggcttg 7980

cagggtcccg tgcccctggg gtgtgaccac cgtcccccgt ttcttcttgg gcggctgggg 8040

cgacgggggc ggtgcctctt ccatggttag aagcggcggc gaggacgcgc gccgggcggc 8100

aggggcggct cggggcccgg aggcaggggc ggcaggggca cgtcggcgcc gcgcgcgggt 8160

aggttctggt actgcgcccg gagaagactg gcgtgagcga cgacgcgacg gttgacgtcc 8220

tggatctgac gcctctgggt gaaggccacg ggacccgtga gtttgaacct gaaagagagt 8280

tcgacagaat caatctcggt atcgttgacg gcggcctgcc gcaggatctc ttgcacgtcg 8340

cccgagttgt cctggtaggc gatctcggtc atgaactgct cgatctcctc ctcttgaagg 8400

tctccgcggc cggcgcgctc cacggtggcc gcgaggtcgt tggagatgcg gcccatgagc 8460

tgcgagaagg cgttcatgcc cgcctcgttc cagacgcggc tgtagaccac gacgccctcg 8520

ggatcgcggg cgcgcatgac cacctgggcg aggttgagct ccacgtggcg cgtgaagacc 8580

gcgtagttgc agaggcgctg gtagaggtag ttgagcgtgg tggcgatgtg ctcggtgacg 8640

aagaaataca tgatccagcg gcggagcggc atctcgctga cgtcgcccag cgcctccaaa 8700

cgttccatgg cctcgtaaaa gtccacggcg aagttgaaaa actgggagtt gcgcgccgag 8760

acggtcaact cctcctccag aagacggatg agctcggcga tggtggcgcg cacctcgcgc 8820

tcgaaggccc ccgggagttc ctccacttcc tcttcttcct cctccactaa catctcttct 8880

acttcctcct caggcggcag tggtggcggg ggaggggggcc tgcgtcgccg gcggcgcacg 8940

ggcagacggt cgatgaagcg ctcgatggtc tcgccgcgcc ggcgtcgcat ggtctcggtg 9000

acggcgcgcc cgtcctcgcg gggccgcagc gtgaagacgc cgccgcgcat ctccaggtgg 9060

ccgggggggt ccccgttggg cagggagagg gcgctgacga tgcatcttat caattgcccc 9120

gtagggactc cgcgcaagga cctgagcgtc tcgagatcca cgggatctga aaaccgctga 9180

acgaaggctt cgagccagtc gcagtcgcaa ggtaggctga gcacggtttc ttctggcggg 9240

tcatgttggt tgggagcggg gcgggcgatg ctgctggtga tgaagttgaa ataggcggtt 9300

ctgagacggc ggatggtggc gaggagcacc aggtctttgg gcccggcttg ctggatgcgc 9360

agacggtcgg ccatgcccca ggcgtggtcc tgacacctgg ccaggtcctt gtagtagtcc 9420

tgcatgagcc gctccacggg cacctcctcc tcgcccgcgc ggccgtgcat gcgcgtgagc 9480

ccgaagccgc gctggggctg gacgagcgcc aggtcggcga cgacgcgctc ggcgaggatg 9540

gcttgctgga tctgggtgag ggtggtctgg aagtcatcaa agtcgacgaa gcggtggtag 9600

gctccggtgt tgatggtgta ggagcagttg gccatgacgg accagttgac ggtctggtgg 9660

cccggacgca cgagctcgtg gtacttgagg cgcgagtagg cgcgcgtgtc gaagatgtag 9720

tcgttgcagg tgcgcaccag gtactggtag ccgatgagga agtgcggcgg cggctggcgg 9780

tagagcggcc atcgctcggt ggcgggggcg ccgggcgcga ggtcctcgag catggtgcgg 9840

tggtagccgt agatgtacct ggacatccag gtgatgccgg cggcggtggt ggaggcgcgc 9900

gggaactcgc ggacgcggtt ccagatgttg cgcagcggca ggaagtagtt catggtgggc 9960

acggtctggc ccgtgaggcg cgcgcagtcg tggatgctct atacgggcaa aaacgaaagc 10020

ggtcagcggc tcgactccgt ggcctggagg ctaagcgaac gggttgggct gcgcgtgtac 10080

cccggttcga atctcgaatc aggctggagc cgcagctaac gtggtattgg cactcccgtc 10140

tcgacccaag cctgcaccaa ccctccagga tacggaggcg ggtcgttttg caacttttt 10200

ttggaggccg gatgagacta gtaagcgcgg aaagcggccg accgcgatgg ctcgctgccg 10260

tagtctggag aagaatcgcc agggttgcgt tgcggtgtgc cccggttcga ggccggccgg 10320

attccgcggc taacgagggc gtggctgccc cgtcgtttcc aagaccccat agccagccga 10380

cttctccagt tacggagcga gcccctcttt tgttttgttt gtttttgcca gatgcatccc 10440

gtactgcggc agatgcgccc ccaccaccct ccaccgcaac aacagccccc tccacagccg 10500

gcgcttctgc ccccgcccca gcagcaactt ccagccacga ccgccgcggc cgccgtgagc 10560

ggggctggac agagttatga tcaccagctg gccttggaag agggcgaggg gctggcgcgc 10620

ctgggggcgt cgtcgccgga gcggcacccg cgcgtgcaga tgaaaaggga cgctcgcgag 10680

gcctacgtgc ccaagcagaa cctgttcaga gacaggagcg gcgaggagcc cgaggagatg 10740

cgcgcggccc ggttccacgc ggggcgggag ctgcggcgcg gcctggaccg aaagagggtg 10800

ctgagggacg aggatttcga ggcggacgag ctgacgggga tcagccccgc gcgcgcgcac 10860

gtggccgcgg ccaacctggt cacggcgtac gagcagaccg tgaaggagga gagcaacttc 10920

caaaaatcct tcaacaacca cgtgcgcacc ctgatcgcgc gcgaggaggt gaccctgggc 10980

ctgatgcacc tgtgggacct gctggaggcc atcgtgcaga accccaccag caagccgctg 11040

acggcgcagc tgttcctggt ggtgcagcat agtcgggaca acgaagcgtt cagggaggcg 11100

ctgctgaata tcaccgagcc cgagggccgc tggctcctgg acctggtgaa cattctgcag 11160

agcatcgtgg tgcaggagcg cgggctgccg ctgtccgaga agctggcggc catcaacttc 11220

tcggtgctga gtttgggcaa gtactacgct aggaagatct acaagacccc gtacgtgccc 11280

atagacaagg aggtgaagat cgacgggttt tacatgcgca tgaccctgaa agtgctgacc 11340

ctgagcgacg atctgggggt gtaccgcaac gacaggatgc accgtgcggt gagcgccagc 11400

aggcggcgcg agctgagcga ccaggagctg atgcatagtc tgcagcgggc cctgaccggg 11460

gccgggaccg agggggagag ctactttgac atgggcgcgg acctgcactg gcagcccagc 11520

cgccgggcct tggaggcggc ggcaggaccc tacgtagaag aggtggacga tgaggtggac 11580

gaggagggcg agtacctgga agactgatgg cgcgaccgta tttttgctag atgcaacaac 11640

aacagccacc tcctgatccc gcgatgcggg cggcgctgca gagccagccg tccggcatta 11700

actcctcgga cgattggacc caggccatgc aacgcatcat ggcgctgacg acccgcaacc 11760

ccgaagcctt tagacagcag ccccaggcca accggctctc ggccatcctg gaggccgtgg 11820

tgccctcgcg ctccaacccc acgcacgaga aggtcctggc catcgtgaac gcgctggtgg 11880

agaacaaggc catccgcggc gacgaggccg gcctggtgta caacgcgctg ctggagcgcg 11940

tggcccgcta caacagcacc aacgtgcaga ccaacctgga ccgcatggtg accgacgtgc 12000

gcgaggccgt ggcccagcgc gagcggttcc accgcgagtc caacctggga tccatggtgg 12060

cgctgaacgc cttcctcagc acccagcccg ccaacgtgcc ccggggccag gaggactaca 12120

ccaacttcat cagcgccctg cgcctgatgg tgaccgaggt gccccagagc gaggtgtacc 12180

agtccgggcc ggactacttc ttccagacca gtcgccaggg cttgcagacc gtgaacctga 12240

gccaggcttt caagaacttg cagggcctgt ggggcgtgca ggccccggtc ggggaccgcg 12300

cgacggtgtc gagcctgctg acgccgaact cgcgcctgct gctgctgctg gtggcccccc 12360

tcacggacag cggcagcatc aaccgcaact cgtacctggg ctacctgatt aacctgtacc 12420

gcgaggccat cggccaggcg cacgtggacg agcagaccta ccaggagatc acccacgtga 12480

gccgcgccct gggccaggac gacccgggca acctggaagc caccctgaac tttttgctga 12540

ccaaccggtc gcagaagatc ccgccccagt acgcgctcag caccgaggag gagcgcatcc 12600

tgcgttacgt gcagcagagc gtgggcctgt tcctgatgca ggaggggggcc acccccagcg 12660

ccgcgctcga catgaccgcg cgcaacatgg agcccagcat gtacgccagc aaccgcccgt 12720

tcatcaataa actgatggac tacttgcatc gggcggccgc catgaactct gactatttca 12780

ccaacgccat cctgaatccc cactggctcc cgccgccggg gttctacacg ggcgagtacg 12840

acatgcccga ccccaatgac gggttcctgt gggacgatgt ggacagcagc gtgttctccc 12900

cccgaccggg tgctaacgag cgcccttgt ggaagaagga aggcagcgac cgacgcccgt 12960

cctcggcgct gtccggccgc gagggtgctg ccgcggcggt gcccgaggcc gccagtcctt 13020

tcccgagctt gcccttctcg ctgaacagta tccgcagcag cgagctgggc aggatcacgc 13080

gcccgcgctt gctgggcgaa gaggagtact tgaatgactc gctgttgaga cccgagcggg 13140

agaagaactt ccccaataac gggatagaaa gcctggtgga caagatgagc cgctggaaga 13200

cgtatgcgca ggagcacagg gacgatcccc gggcgtcgca gggggccacg agccggggca 13260

gcgccgcccg taaacgccgg tggcacgaca ggcagcgggg acagatgtgg gacgatgagg 13320

actccgccga cgacagcagc gtgttggact tgggtgggag tggtaacccg ttcgctcacc 13380

tgcgcccccg tatcgggcgc atgatgtaag agaaaccgaa aataaatgat actcaccaag 13440

gccatggcga ccagcgtgcg ttcgtttctt ctctgttgtt gttgtatcta gtatgatgag 13500

gcgtgcgtac ccggagggtc ctcctccctc gtacgagagc gtgatgcagc aggcgatggc 13560

ggcggcggcg atgcagcccc cgctggaggc tccttacgtg cccccgcggt acctggcgcc 13620

tacggagggg cggaacagca ttcgttactc ggagctggca cccttgtacg ataccacccg 13680

gttgtacctg gtggacaaca agtcggcgga catcgcctcg ctgaactacc agaacgacca 13740

cagcaacttc ctgaccaccg tggtgcagaa caatgacttc acccccacgg aggccagcac 13800

ccagaccatc aactttgacg agcgctcgcg gtggggcggc cagctgaaaa ccatcatgca 13860

caccaacatg cccaacgtga acgagttcat gtacagcaac aagttcaagg cgcgggtgat 13920

ggtctcccgc aagaccccca atggggtgac agtgacagag gattatgatg gtagtcagga 13980

tgagctgaag tatgaatggg tggaatttga gctgcccgaa ggcaacttct cggtgaccat 14040

gaccatcgac ctgatgaaca acgccatcat cgacaattac ttggcggtgg ggcggcagaa 14100

cggggtgctg gagagcgaca tcggcgtgaa gttcgacact aggaacttca ggctgggctg 14160

ggaccccgtg accgagctgg tcatgcccgg ggtgtacacc aacgaggctt tccatcccga 14220

tattgtcttg ctgcccggct gcggggtgga cttcaccgag agccgcctca gcaacctgct 14280

gggcattcgc aagaggcagc ccttccagga aggcttccag atcatgtacg aggatctgga 14340

ggggggcaac atccccgcgc tcctggatgt cgacgcctat gagaaaagca aggaggatgc 14400

agcagctgaa gcaactgcag ccgtagctac cgcctctacc gaggtcaggg gcgataattt 14460

tgcaagcgcc gcagcagtgg cagcggccga ggcggctgaa accgaaagta agatagtcat 14520

tcagccggtg gagaaggata gcaagaacag gagctacaac gtactaccgg acaagataaa 14580

caccgcctac cgcagctggt acctagccta caactatggc gaccccgaga agggcgtgcg 14640

ctcctggacg ctgctcacca cctcggacgt cacctgcggc gtggagcaag tctactggtc 14700

gctgcccgac atgatgcaag acccggtcac cttccgctcc acgcgtcaag ttagcaacta 14760

cccggtggtg ggcgccgagc tcctgcccgt ctactccaag agcttcttca acgagcaggc 14820

cgtctactcg cagcagctgc gcgccttcac ctcgcttacg cacgtcttca accgcttccc 14880

cgagaaccag atcctcgtcc gcccgcccgc gcccaccatt accaccgtca gtgaaaacgt 14940

tcctgctctc acagatcacg ggaccctgcc gctgcgcagc agtatccggg gagtccagcg 15000

cgtgaccgtt actgacgcca gacgccgcac ctgcccctac gtctacaagg ccctgggcat 15060

agtcgcgccg cgcgtcctct cgagccgcac cttctaaatg tccattctca tctcgcccag 15120

taataacacc ggttggggcc tgcgcgcgcc cagcaagatg tacggaggcg ctcgccaacg 15180

ctccacgcaa caccccgtgc gcgtgcgcgg gcacttccgc gctccctggg gcgccctcaa 15240

gggccgcgtg cggtcgcgca ccaccgtcga cgacgtgatc gaccaggtgg tggccgacgc 15300

gcgcaactac acccccgccg ccgcgcccgt ctccaccgtg gacgccgtca tcgacagcgt 15360

ggtggccgac gcgcgccggt acgcccgcgc caagagccgg cggcggcgca tcgcccggcg 15420

gcaccggagc acccccgcca tgcgcgcggc gcgagccttg ctgcgcaggg ccaggcgcac 15480

gggacgcagg gccatgctca gggcggccag acgcgcggct tcaggcgcca gcgccggcag 15540

gacccggaga cgcgcggcca cggcggcggc agcggccatc gccagcatgt cccgcccgcg 15600

gcgagggaac gtgtactggg tgcgcgacgc cgccaccggt gtgcgcgtgc ccgtgcgcac 15660

ccgcccccct cgcacttgaa gatgttcact tcgcgatgtt gatgtgtccc agcggcgagg 15720

aggatgtcca agcgcaaatt caaggaagag atgctccagg tcatcgcgcc tgagatctac 15780

ggccctgcgg tggtgaagga ggaaagaaag ccccgcaaaa tcaagcgggt caaaaaggac 15840

aaaaaggaag aagaaagtga tgtggacgga ttggtggagt ttgtgcgcga gttcgccccc 15900

cggcggcgcg tgcagtggcg cgggcggaag gtgcaaccgg tgctgagacc cggcaccacc 15960

gtggtcttca cgcccggcga gcgctccggc accgcttcca agcgctccta cgacgaggtg 16020

tacggggatg atgatattct ggagcaggcg gccgagcgcc tgggcgagtt tgcttacggc 16080

aagcgcagcc gttccgcacc gaaggaagag gcggtgtcca tcccgctgga ccacggcaac 16140

cccacgccga gcctcaagcc cgtgaccttg cagcaggtgc tgccgaccgc ggcgccgcgc 16200

cgggggttca agcgcgaggg cgaggatctg taccccacca tgcagctgat ggtgcccaag 16260

cgccagaagc tggaagacgt gctggagacc atgaaggtgg acccggacgt gcagcccgag 16320

gtcaaggtgc ggcccatcaa gcaggtggcc ccgggcctgg gcgtgcagac cgtggacatc 16380

aagattccca cggagcccat ggaaacgcag accgagccca tgatcaagcc cagcaccagc 16440

accatggagg tgcagacgga tccctggatg ccatcggctc ctagtcgaag accccggcgc 16500

aagtacggcg cggccagcct gctgatgccc aactacgcgc tgcatccttc catcatcccc 16560

acgccgggct accgcggcac gcgcttctac cgcggtcata ccagcagccg ccgccgcaag 16620

accaccactc gccgccgccg tcgccgcacc gccgctgcaa ccacccctgc cgccctggtg 16680

cggagagtgt accgccgcgg ccgcgcacct ctgaccctgc cgcgcgcgcg ctaccacccg 16740

agcatcgcca tttaaacttt cgcctgcttt gcagatcaat ggccctcaca tgccgccttc 16800

gcgttcccat tacgggctac cgaggaagaa aaccgcgccg tagaaggctg gcggggaacg 16860

ggatgcgtcg ccaccaccac cggcggcggc gcgccatcag caagcggttg gggggaggct 16920

tcctgcccgc gctgatcccc atcatcgccg cggcgatcgg ggcgatcccc ggcattgctt 16980

ccgtggcggt gcaggcctct cagcgccact gagacacact tggaaacatc ttgtaataaa 17040

ccaatggact ctgacgctcc tggtcctgtg atgtgttttc gtagacagat ggaagacatc 17100

aatttttcgt ccctggctcc gcgacacggc acgcggccgt tcatgggcac ctggagcgac 17160

atcggcacca gccaactgaa cgggggcgcc ttcaattgga gcagtctctg gagcgggctt 17220

aagaatttcg ggtccacgct taaaacctat ggcagcaagg cgtggaacag caccacaggg 17280

caggcgctga gggataagct gaaagagcag aacttccagc agaaggtggt cgatgggctc 17340

gcctcgggca tcaacggggt ggtggacctg gccaaccagg ccgtgcagcg gcagatcaac 17400

agccgcctgg acccggtgcc gcccgccggc tccgtggaga tgccgcaggt ggaggaggag 17460

ctgcctcccc tggacaagcg gggcgagaag cgaccccgcc ccgatgcgga ggagacgctg 17520

ctgacgcaca cggacgagcc gcccccgtac gaggaggcgg tgaaactggg tctgcccacc 17580

acgcggccca tcgcgccccc ggccaccggg gtgctgaaac ccgaaaagcc cgcgaccctg 17640

gacttgcctc ctccccagcc ttcccgcccc tctacagtgg ctaagccccc gccgccggtg 17700

gccgtggccc gcgcgcgacc cgggggcacc gcccgccctc atgcgaactg gcagagcact 17760

ctgaacagca tcgtgggtct gggagtgcag agtgtgaagc gccgccgctg ctattaaacc 17820

taccgtagcg cttaacttgc ttgtctgtgt gtgtatgtat tatgtcgccg ccgccgctgt 17880

ccaccagaag gaggagtgaa gaggcgcgtc gccgagttgc aagatggcca ccccatcgat 17940

gctgccccag tgggcgtaca tgcacatcgc cggacaggac gcttcggagt acctgagtcc 18000

gggtctggtg cagtttgccc gcgccacaga cacctacttc agtctgggga acaagtttag 18060

gaaccccacg gtggcgccca cgcacgatgt gaccaccgac cgcagccagc ggctgacgct 18120

gcgcttcgtg cccgtggacc gcgaggacaa cacctactcg tacaaagtgc gctacacgct 18180

ggccgtgggc gacaaccgcg tgctggacat ggccagcacc tactttgaca tccgcggcgt 18240

gctggatcgg ggccctagct tcaaacccta ctccggcacc gcctacaaca gtctggcccc 18300

caagggagca cccaacactt gtcagtggac atataaagcc gatggtgaaa ctgccacaga 18360

aaaaacctat acatatggaa atgcacccgt gcagggcatt aacatcacaa aagatggtat 18420

tcaacttgga actgacaccg atgatcagcc aatctacgca gataaaacct atcagcctga 18480

acctcaagtg ggtgatgctg aatggcatga catcactggt actgatgaaa agtatggagg 18540

cagagctctt aagcctgata ccaaaatgaa gccttgttat ggttcttttg ccaagcctac 18600

taataaagaa ggaggtcagg caaatgtgaa aacaggaaca ggcactacta aagaatatga 18660

catagacatg gctttctttg acaacagaag tgcggctgct gctggcctag ctccagaaat 18720

tgttttgtat actgaaaatg tggatttgga aactccagat acccatattg tatacaaagc 18780

aggcacagat gacagcagct cttctattaa tttgggtcag caagccatgc ccaacagacc 18840

taactacatt ggtttcagag acaactttat cgggctcatg tactacaaca gcactggcaa 18900

tatgggggtg ctggccggtc aggcttctca gctgaatgct gtggttgact tgcaagacag 18960

aaacaccgag ctgtcctacc agctcttgct tgactctctg ggtgacagaa cccggtattt 19020

cagtatgtgg aatcaggcgg tggacagcta tgatcctgat gtgcgcatta ttgaaaatca 19080

tggtgtggag gatgaacttc ccaactattg tttccctctg gatgctgttg gcagaacaga 19140

tacttatcag ggaattaagg ctaatggaac tgatcaaacc acatggacca aagatgacag 19200

tgtcaatgat gctaatgaga taggcaaggg taatccattc gccatggaaa tcaacatcca 19260

agccaacctg tggaggaact tcctctacgc caacgtggcc ctgtacctgc ccgactctta 19320

caagtacacg ccggccaatg ttaccctgcc caccaacacc aacacctacg attacatgaa 19380

cggccgggtg gtggcgccct cgctggtgga ctcctacatc aacatcgggg cgcgctggtc 19440

gctggatccc atggacaacg tgaacccctt caaccaccac cgcaatgcgg ggctgcgcta 19500

ccgctccatg ctcctgggca acgggcgcta cgtgcccttc cacatccagg tgccccagaa 19560

atttttcgcc atcaagagcc tcctgctcct gcccgggtcc tacacctacg agtggaactt 19620

ccgcaaggac gtcaacatga tcctgcagag ctccctcggc aacgacctgc gcacggacgg 19680

ggcctccatc tccttcacca gcatcaacct ctacgccacc ttcttcccca tggcgcacaa 19740

cacggcctcc acgctcgagg ccatgctgcg caacgacacc aacgaccagt ccttcaacga 19800

ctacctctcg gcggccaaca tgctctaccc catcccggcc aacgccacca acgtgcccat 19860

ctccatcccc tcgcgcaact gggccgcctt ccgcggctgg tccttcacgc gtctcaagac 19920

caaggagacg ccctcgctgg gctccgggtt cgacccctac ttcgtctact cgggctccat 19980

cccctacctc gacggcacct tctacctcaa ccacaccttc aagaaggtct ccatcacctt 20040

cgactcctcc gtcagctggc ccggcaacga ccggctcctg acgcccaacg agttcgaaat 20100

caagcgcacc gtcgacggcg agggctacaa cgtggcccag tgcaacatga ccaaggactg 20160

gttcctggtc cagatgctgg cccactacaa catcggctac cagggcttct acgtgcccga 20220

gggctacaag gaccgcatgt actccttctt ccgcaacttc cagcccatga gccgccaggt 20280

ggtggacgag gtcaactaca aggactacca ggccgtcacc ctggcctacc agcacaacaa 20340

ctcgggcttc gtcggctacc tcgcgcccac catgcgccag ggccagccct accccgccaa 20400

ctacccctac ccgctcatcg gcaagagcgc cgtcaccagc gtcacccaga aaaagttcct 20460

ctgcgacagg gtcatgtggc gcatcccctt ctccagcaac ttcatgtcca tgggcgcgct 20520

caccgacctc ggccagaaca tgctctatgc caactccgcc cacgcgctag acatgaattt 20580

cgaagtcgac cccatggatg agtccaccct tctctatgtt gtcttcgaag tcttcgacgt 20640

cgtccgagtg caccagcccc accgcggcgt catcgaggcc gtctacctgc gcacccccct 20700

ctcggccggt aacgccacca cctaagctct tgcttcttgc aagccatggc cgcgggctcc 20760

ggcgagcagg agctcagggc catcatccgc gacctgggct gcgggcccta cttcctgggc 20820

accttcgata agcgcttccc gggattcatg gccccgcaca agctggcctg cgccatcgtc 20880

aacacggccg gccgcgagac cgggggcgag cactggctgg ccttcgcctg gaacccgcgc 20940

tcgaacacct gctacctctt cgacccccttc gggttctcgg acgagcgcct caagcagatc 21000

taccagttcg agtacgaggg cctgctgcgc cgcagcgccc tggccaccga ggaccgctgc 21060

gtcaccctgg aaaagtccac ccagaccgtg cagggtccgc gctcggccgc ctgcgggctc 21120

ttctgctgca tgttcctgca cgccttcgtg cactggcccg accgccccat ggacaagaac 21180

cccaccatga acttgctgac gggggtgccc aacggcatgc tccagtcgcc ccaggtggaa 21240

cccaccctgc gccgcaacca ggaggcgctc taccgcttcc tcaactccca ctccgcctac 21300

tttcgctccc accgcgcgcg catcgagaag gccaccgcct tcgaccgcat gaatcaagac 21360

atgtaaaccg tgtgtgtatg ttaaatgtct ttaataaaca gcactttcat gttacacatg 21420

catctgagat gatttattta gaaatcgaaa gggttctgcc gggtctcggc atggcccgcg 21480

ggcagggaca cgttgcggaa ctggtacttg gccagccact tgaactcggg gatcagcagt 21540

ttgggcagcg gggtgtcggg gaaggagtcg gtccacagct tccgcgtcag ttgcagggcg 21600

cccagcaggt cgggcgcgga gatcttgaaa tcgcagttgg gacccgcgtt ctgcgcgcgg 21660

gagttgcggt acacggggtt gcagcactgg aacaccatca gggccgggtg cttcacgctc 21720

gccagcaccg tcgcgtcggt gatgctctcc acgtcgaggt cctcggcgtt ggccatcccg 21780

aaggggtca tcttgcaggt ctgccttccc atggtgggca cgcacccggg cttgtggttg 21840

caatcgcagt gcaggggat cagcatcatc tgggcctggt cggcgttcat ccccgggtac 21900

atggccttca tgaaagcctc caattgcctg aacgcctgct gggccttggc tccctcggtg 21960

aagaagaccc cgcaggactt gctagagaac tggttggtgg cgcacccggc gtcgtgcacg 22020

cagcagcgcg cgtcgttgtt ggccagctgc accacgctgc gcccccagcg gttctgggtg 22080

atcttggccc ggtcggggtt ctccttcagc gcgcgctgcc cgttctcgct cgccacatcc 22140

atctcgatca tgtgctcctt ctggatcatg gtggtcccgt gcaggcaccg cagcttgccc 22200

tcggcctcgg tgcacccgtg cagccacagc gcgcacccgg tgcactccca gttcttgtgg 22260

gcgatctggg aatgcgcgtg cacgaagccc tgcaggaagc ggcccatcat ggtggtcagg 22320

gtcttgttgc tagtgaaggt cagcggaatg ccgcggtgct cctcgttgat gtacaggtgg 22380

cagatgcggc ggtacacctc gccctgctcg ggcatcagct ggaagttggc tttcaggtcg 22440

gtctccacgc ggtagcggtc catcagcata gtcatgattt ccataccctt ctcccaggcc 22500

gagacgatgg gcaggctcat agggttcttc accatcatct tagcgctagc agccgcggcc 22560

agggggtcgc tctcgtccag ggtctcaaag ctccgcttgc cgtccttctc ggtgatccgc 22620

accgggggggt agctgaagcc cacggccgcc agctcctcct cggcctgtct ttcgtcctcg 22680

ctgtcctggc tgacgtcctg caggaccaca tgcttggtct tgcggggttt cttcttgggc 22740

ggcagcggcg gcggagatgt tggagatggc gaggggggagc gcgagttctc gctcaccact 22800

actatctctt cctcttcttg gtccgaggcc acgcggcggt aggtatgtct cttcgggggc 22860

agaggcggag gcgacgggct ctcgccgccg cgacttggcg gatggctggc agagcccctt 22920

ccgcgttcgg gggtgcgctc ccggcggcgc tctgactgac ttcctccgcg gccggccatt 22980

gtgttctcct agggaggaac aacaagcatg gagactcagc catcgccaac ctcgccatct 23040

gcccccaccg ccgacgagaa gcagcagcag cagaatgaaa gcttaaccgc cccgccgccc 23100

agccccgcca cctccgacgc ggccgtccca gacatgcaag agatggagga atccatcgag 23160

attgacctgg gctatgtgac gcccgcggag cacgaggagg agctggcagt gcgcttttca 23220

caagaagaga tacaccaaga acagccagag caggaagcag agaatgagca gagtcaggct 23280

gggctcgagc atgacggcga ctacctccac ctgagcgggg gggaggacgc gctcatcaag 23340

catctggccc ggcaggccac catcgtcaag gatgcgctgc tcgaccgcac cgaggtgccc 23400

ctcagcgtgg aggagctcag ccgcgcctac gagttgaacc tcttctcgcc gcgcgtgccc 23460

cccaagcgcc agcccaatgg cacctgcgag cccaacccgc gcctcaactt ctacccggtc 23520

ttcgcggtgc ccgaggccct ggccacctac cacatctttt tcaagaacca aaagatcccc 23580

gtctcctgcc gcgccaaccg cacccgcgcc gacgcccttt tcaacctggg tcccggcgcc 23640

cgcctacctg atatcgcctc cttggaagag gttcccaaga tcttcgaggg tctgggcagc 23700

gacgagactc gggccgcgaa cgctctgcaa ggagaaggag gagagcatga gcaccacagc 23760

gccctggtcg agttggaagg cgacaacgcg cggctggcgg tgctcaaacg cacggtcgag 23820

ctgacccatt tcgcctaccc ggctctgaac ctgcccccca aagtcatgag cgcggtcatg 23880

gaccaggtgc tcatcaagcg cgcgtcgccc atctccgagg acgagggcat gcaagactcc 23940

gaggagggca agcccgtggt cagcgacgag cagctggccc ggtggctggg tcctaatgct 24000

agtccccaga gtttggaaga gcggcgcaaa ctcatgatgg ccgtggtcct ggtgaccgtg 24060

gagctggagt gcctgcgccg cttcttcgcc gacgcggaga ccctgcgcaa ggtcgaggag 24120

aacctgcact acctcttcag gcacgggttc gtgcgccagg cctgcaagat ctccaacgtg 24180

gagctgacca acctggtctc ctacatgggc atcttgcacg agaaccgcct ggggcagaac 24240

gtgctgcaca ccaccctgcg cggggaggcc cggcgcgact acatccgcga ctgcgtctac 24300

ctctacctct gccacacctg gcagacgggc atgggcgtgt ggcagcagtg tctggaggag 24360

cagaacctga aagagctctg caagctcctg cagaagaacc tcaagggtct gtggaccggg 24420

ttcgacgagc gcaccaccgc ctcggacctg gccgacctca ttttccccga gcgcctcagg 24480

ctgacgctgc gcaacggcct gcccgacttt atgagccaaa gcatgttgca aaactttcgc 24540

tctttcatcc tcgaacgctc cggaatcctg cccgccacct gctccgcgct gccctcggac 24600

ttcgtgccgc tgaccttccg cgagtgcccc ccgccgctgt ggagccactg ctacctgctg 24660

cgcctggcca actacctggc ctaccactcg gacgtgatcg aggacgtcag cggcgagggc 24720

ctgctcgagt gccactgccg ctgcaacctc tgcacgccgc accgctccct ggcctgcaac 24780

ccccagctgc tgagcgagac ccagatcatc ggcaccttcg agttgcaagg gcccagcgaa 24840

ggcgagggtt cagccgccaa ggggggtctg aaactcaccc cggggctgtg gacctcggcc 24900

tacttgcgca agttcgtgcc cgaggactac catcccttcg agatcaggtt ctacgaggac 24960

caatcccatc cgcccaaggc cgagctgtcg gcctgcgtca tcacccaggg ggcgatcctg 25020

gcccaattgc aagccatcca gaaatcccgc caagaattct tgctgaaaaa gggccgcggg 25080

gtctacctcg acccccagac cggtgaggag ctcaaccccg gcttccccca ggatgccccg 25140

aggaaacaag aagctgaaag tggagctgcc gcccgtggag gatttggagg aagactggga 25200

gaacagcagt caggcagagg aggaggagat ggaggaagac tgggacagca ctcaggcaga 25260

ggaggacagc ctgcaagaca gtctggagga agacgaggag gaggcagagg aggaggtgga 25320

agaagcagcc gccgccagac cgtcgtcctc ggcgggggag aaagcaagca gcacggatac 25380

catctccgct ccgggtcggg gtcccgctcg accacacagt agatgggacg agaccggacg 25440

attcccgaac cccaccaccc agaccggtaa gaaggagcgg cagggataca agtcctggcg 25500

ggggcacaaa aacgccatcg tctcctgctt gcaggcctgc gggggcaaca tctccttcac 25560

ccggcgctac ctgctcttcc accgcggggt gaactttccc cgcaacatct tgcattacta 25620

ccgtcacctc cacagcccct actacttcca agaagaggca gcagcagcag aaaaagacca 25680

gcagaaaacc agcagctaga aaatccacag cggcggcagc aggtggactg aggatcgcgg 25740

cgaacgagcc ggcgcaaacc cgggagctga ggaaccggat ctttcccacc ctctatgcca 25800

tcttccagca gagtcggggg caggagcagg aactgaaagt caagaaccgt tctctgcgct 25860

cgctcacccg cagttgtctg tatcacaaga gcgaagacca acttcagcgc actctcgagg 25920

acgccgaggc tctcttcaac aagtactgcg cgctcactct taaagagtag cccgcgcccg 25980

cccagtcgca gaaaaaggcg ggaattacgt cacctgtgcc cttcgcccta gccgcctcca 26040

cccatcatca tgagcaaaga gattcccacg ccttacatgt ggagctacca gccccagatg 26100

ggcctggccg ccggtgccgc ccaggactac tccacccgca tgaattggct cagcgccggg 26160

cccgcgatga tctcacgggt gaatgacatc cgcgcccacc gaaaccagat actcctagaa 26220

cagtcagcgc tcaccgccac gccccgcaat cacctcaatc cgcgtaattg gcccgccgcc 26280

ctggtgtacc aggaaattcc ccagcccacg accgtactac ttccgcgaga cgcccaggcc 26340

gaagtccagc tgactaactc aggtgtccag ctggcgggcg gcgccaccct gtgtcgtcac 26400

cgccccgctc agggtataaa gcggctggtg atccggggca gaggcacaca gctcaacgac 26460

gaggtggtga gctcttcgct gggtctgcga cctgacggag tcttccaact cgccggatcg 26520

gggagatctt ccttcacgcc tcgtcaggcc gtcctgactt tggagagttc gtcctcgcag 26580

ccccgctcgg gtggcatcgg cactctccag ttcgtggagg agttcactcc ctcggtctac 26640

ttcaacccct tctccggctc ccccggccac tacccggacg agttcatccc gaacttcgac 26700

gccatcagcg agtcggtgga cggctacgat tgaaactaat caccccctta tccagtgaaa 26760

taaagatcat attgatgatg attttacaga aataaaaaat aatcatttga tttgaaataa 26820

agatacaatc atattgatga tttgagttta acaaaaaaat aaagaatcac ttacttgaaa 26880

tctgatacca ggtctctgtc catgttttct gccaacacca cttcactccc ctcttcccag 26940

ctctggtact gcaggccccg gcgggctgca aacttcctcc acacgctgaa ggggatgtca 27000

aattcctcct gtccctcaat cttcatttta tcttctatca gatgtccaaa aagcgcgtcc 27060

gggtggatga tgacttcgac cccgtctacc cctacgatgc agacaacgca ccgaccgtgc 27120

ccttcatcaa ccccccccttc gtctcttcag atggattcca agagaagccc ctgggggtgt 27180

tgtccctgcg actggccgac cccgtcacca ccaagaacgg ggaaatcacc ctcaagctgg 27240

gagaggggggt ggacctcgat tcctcgggaa aactcatctc caacacggcc accaaggccg 27300

ccgcccctct cagtttttcc aacaacacca tttcccttaa catggatcac ccctttttaca 27360

ctaaagatgg aaaattatcc ttacaagttt ctccaccatt aaatatactg agaacaagca 27420

ttctaaacac actagcttta ggttttggat caggtttagg actccgtggc tctgccttgg 27480

cagtacagtt agtctctcca cttacatttg atactgatgg aaacataaag cttaccttag 27540

acagaggttt gcatgttaca acaggagatg caattgaaag caacataagc tgggctaaag 27600

gtttaaaatt tgaagatgga gccatagcaa ccaacattgg aaatgggtta gagtttggaa 27660

gcagtagtac agaaacaggt gttgatgatg cttacccaat ccaagttaaa cttggatctg 27720

gccttagctt tgacagtaca ggagccataa tggctggtaa caaagaagac gataaactca 27780

ctttgtggac aacacctgat ccatcaccaa actgtcaaat actcgcagaa aatgatgcaa 27840

aactaacact ttgcttgact aaatgtggta gtcaaatact ggccactgtg tcagtcttag 27900

ttgtaggaag tggaaaccta aaccccatta ctggcaccgt aagcagtgct caggtgtttc 27960

tacgttttga tgcaaacggt gttcttttaa cagaacattc tacactaaaa aaatactggg 28020

ggtataggca gggagatagc atagatggca ctccatatac caatgctgta ggattcatgc 28080

ccaatttaaa agcttatcca aagtcacaaa gttctactac taaaaataat atagtagggc 28140

aagtatacat gaatggagat gtttcaaaac ctatgcttct cactataacc ctcaatggta 28200

ctgatgacag caacagtaca tattcaatgt cattttcata cacctggact aatggaagct 28260

atgttggagc aacatttggg gctaactctt ataccttctc atacatcgcc caagaatgaa 28320

cactgtatcc caccctgcat gccaaccctt cccaccccac tctgtggaac aaactctgaa 28380

acacaaaata aaataaagtt caagtgtttt attgattcaa cagttttaca ggattcgagc 28440

agttatttt cctccaccct cccaggacat ggaatacacc accctctccc cccgcacagc 28500

cttgaacatc tgaatgccat tggtgatgga catgcttttg gtctccacgt tccacacagt 28560

ttcagagcga gccagtctcg ggtcggtcag ggagatgaaa ccctccgggc actcccgcat 28620

ctgcacctca cagctcaaca gctgaggatt gtcctcggtg gtcgggatca cggttatctg 28680

gaagaagcag aagagcggcg gtgggaatca tagtccgcga acgggatcgg ccggtggtgt 28740

cgcatcaggc cccgcagcag tcgctgccgc cgccgctccg tcaagctgct gctcaggggg 28800

tccgggtcca gggactccct cagcatgatg cccacggccc tcagcatcag tcgtctggtg 28860

cggcgggcgc agcagcgcat gcggatctcg ctcaggtcgc tgcagtacgt gcaacacaga 28920

accaccaggt tgttcaacag tccatagttc aacacgctcc agccgaaact catcgcggga 28980

aggatgctac ccacgtggcc gtcgtaccag atcctcaggt aaatcaagtg gtgccccctc 29040

cagaacacgc tgcccacgta catgatctcc ttgggcatgt ggcggttcac cacctcccgg 29100

taccacatca ccctctggtt gaacatgcag ccccggatga tcctgcggaa ccacagggcc 29160

agcaccgccc cgcccgccat gcagcgaaga gaccccgggt cccggcaatg gcaatggagg 29220

acccaccgct cgtacccgtg gatcatctgg gagctgaaca agtctatgtt ggcacagcac 29280

aggcatatgc tcatgcatct cttcagcact ctcaactcct cgggggtcaa aaccatatcc 29340

cagggcacgg ggaactcttg caggacagcg aaccccgcag aacagggcaa tcctcgcaca 29400

gaacttacat tgtgcatgga cagggtatcg caatcaggca gcaccgggtg atcctccacc 29460

agagaagcgc gggtctcggt ctcctcacag cgtggtaagg gggccggccg atacgggtga 29520

tggcgggacg cggctgatcg tgttcgcgac cgtgtcatga tgcagttgct ttcggacatt 29580

ttcgtacttg ctgtagcaga acctggtccg ggcgctgcac accgatcgcc ggcggcggtc 29640

tcggcgcttg gaacgctcgg tgttgaaatt gtaaaacagc cactctctca gaccgtgcag 29700

cagatctagg gcctcaggag tgatgaagat cccatcatgc ctgatggctc tgatcacatc 29760

gaccaccgtg gaatgggcca gacccagcca gatgatgcaa ttttgttggg tttcggtgac 29820

ggcgggggag ggaagaacag gaagaaccat gattaacttt taatccaaac ggtctcggag 29880

tacttcaaaa tgaagatcgc ggagatggca cctctcgccc ccgctgtgtt ggtggaaaat 29940

aacagccagg tcaaaggtga tacggttctc gagatgttcc acggtggctt ccagcaaagc 30000

ctccacgcgc acatccagaa acaagacaat agcgaaagcg ggagggttct ctaattcctc 30060

aatcatcatg ttacactcct gcaccatccc cagataattt tcatttttcc agccttgaat 30120

gattcgaact agttcctgag gtaaatccaa gccagccatg ataaagagct cgcgcagagc 30180

gccctccacc ggcattctta agcacaccct cataattcca agatattctg ctcctggttc 30240

acctgcagca gattgacaag cggaatatca aaatctctgc cgcgatccct gagctcctcc 30300

ctcagcaata actgtaagta ctctttcata tcctctccga aatttttagc cataggacca 30360

ccaggaataa gattagggca agccacagta cagataaacc gaagtcctcc ccagtgagca 30420

ttgccaaatg caagactgct ataagcatgc tggctagacc cggtgatatc ttccagataa 30480

ctggacagaa aatcgcccag gcaattttta agaaaatcaa caaaagaaaa atcctccagg 30540

tggacgttta gagcctcggg aacaacgatg aagtaaatgc aagcggtgcg ttccagcatg 30600

gttagttagc tgatctgtag aaaaaacaaa aatgaacatt aaaccatgct agcctggcga 30660

acaggtgggt aaatcgttct ctccagcacc aggcaggcca cggggtctcc ggcgcgaccc 30720

tcgtaaaaat tgtcgctatg attgaaaacc atcacagaga gacgttcccg gtggccggcg 30780

tgaatgattc gacaagatga atacaccccc ggaacattgg cgtccgcgag tgaaaaaaag 30840

cgcccgagga agcaataagg cactacaatg ctcagtctca agtccagcaa agcgatgcca 30900

tgcggatgaa gcacaaaatt ctcaggtgcg tacaaaatgt aattactccc ctcctgcaca 30960

ggcagcaaag cccccgatcc ctccaggtac acatacaaag cctcagcgtc catagcttac 31020

cgagcagcag cacacaacag gcgcaagagt cagagaaagg ctgagctcta acctgtccac 31080

ccgctctctg ctcaatatat agcccagatc tacactgacg taaaggccaa agtctaaaaa 31140

tacccgccaa ataatcacac acgcccagca cacgcccaga aaccggtgac acactcaaaa 31200

aaatacgcgc acttcctcaa acgcccaaaa ctgccgtcat ttccgggttc ccacgctacg 31260

tcatcaaaac acgactttca aattccgtcg accgttaaaa acgtcacccg ccccgccccct 31320

aacggtcgcc cgtctctcag ccaatcagcg ccccgcatcc ccaaattcaa acacctcatt 31380

tgcatattaa cgcgcacaaa aagtttgagg tatattattg atgatgg 31427

<210> 68
<211> 31681
<212> DNA
<213> Artificial Sequence

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

<400> 68
catcatcaat aatatacctc aaacttttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatgacattg 600

attattgact agttgttaat agtaatcaat tacggggtca ttagttcata gcccatatat 660

ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc 720

ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca 780

ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta 840

tcatatgcca agtccgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta 900

tgcccagtac atgaccttac gggactttcc tacttggcag tacatctacg tattagtcat 960

cgctattacc atggtgatgc ggttttggca gtacaccaat gggcgtggat agcggtttga 1020

ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca 1080

aaatcaacgg gactttccaa aatgtcgtaa taaccccgcc ccgttgacgc aaatgggcgg 1140

taggcgtgta cggtgggagg tctatataag cagagctctc cctatcagtg atagagatct 1200

ccctatcagt gatagagatc gtcgacgagc tcgtttagtg aaccgtcaga tcgcctggaa 1260

cgccatccac gctgttttga cctccataga agacagcgat cgcgccacca tggctggcat 1320

gaccgagtac aagctagtcg ttgtgggagc tggagatgtg ggcaaatctg ctctgaccat 1380

tcagctgatt cagggcacag atctggatca ccaggagaag tgtctgagca ggctgtacga 1440

ccacatgcca gaaggattaa cccctcttat gggagtgagc tcttcttctg ctctggccag 1500

actgggactg cctatggata agctgaacaa gatcacagct cctgcctctc agaaactgag 1560

acagctgcag aagatggaga cccctgaact gctgccttgt ggatatctgg tggaggagaa 1620

taccacaatc agcgtgaccg tgaaaggcct ggaagcccag aacaagatca aaggctgtac 1680

cggctctgtg aatatgacac tgcagagagc ttctgccgcc cctaagacag gaggaggagg 1740

agaagctgct gcctacaata atacattagt ggccagacat gtgccccaga tccctaagcc 1800

tgacagcctg gttggcctga gcgatgaatt aggaaaaaga gacacatttg ccgagagcct 1860

gatccggaga atggcctctg ccggctacct gttcctggat atcatcacat atgttgtgtt 1920

tgccgtgacc ttcgtgctgg gagttctggg cggcctgaat accgagacca atgaaaaagc 1980

tcttgaagcc gtgtttggca agtacggcag aatcgtggag gtgctgggcg gcagatcttg 2040

tgaagaatta acagctgtgt taccacctcc tcagctgctt ggcagacggt tcaacttctt 2100

cagctacagc tacgttgctg ctggctcttc tggcaacaac tacgacctga tggcccagcc 2160

tattacacct ggacctgata caacacctct gcctgtgacc gatacatctt ctgtgtctac 2220

cggacacgcc acatctctgc cagtgacaga tgctggactg agagtgacag agtctaaagg 2280

acacagcgat tcttggcacc tgagcctgga tacagccatc agggtgaata cccctaagct 2340

ggtttctgaa gtggaagagc tgaacaagag catcaccgcc ctgagggaga agttactgca 2400

gatggtggaa gccgatagac ctggaaacct gtttattgga ggcctgaaca ccgagaccaa 2460

tgaggactct cccgtgaagg atgaagtggt ggtgaacgat caatggggcc agaattgtag 2520

ctgccatcat ggaggctacg agttccctga tctgcacagg acaatcgtgt ctgagtgcga 2580

tgtgtatctg acctacatgc tgagacaggc tgctctgcag ctgttcttcg acctgtatca 2640

cagcatccct agcagctttt ctcctctggt tctgagctgt ctggtgcagc ctctggaaga 2700

tgtggaagtg atggagaagg atggcacaac ctttagctgt gaggtgagcc acgatgaggt 2760

gcctcggaca tatggacccg tgtttatgtg tctgggagga ctgctgacca tggtggctgg 2820

agctgtttgg ctgacagttg gacccggacc aggcgccaaa tttgttgctg cttggacact 2880

gaaagctgct gctgggcccg gaccaggcca gtacatcaag gccaactcta agtttatcgg 2940

catcaccgaa ttgggacctg gacccggcta gtagtgagtt taaactccca tttaaatgtg 3000

agggttaatg cttcgagcag acatgataag atacattgat gagtttggac aaaccacaac 3060

tagaatgcag tgaaaaaaat gctttatttg tgaaatttgt gatgctattg ctttatttgt 3120

aaccattata agctgcaata aacaagttaa caacaacaat tgcattcatt ttatgtttca 3180

ggttcagggg gagatgtggg aggtttttta aagcaagtaa aacctctaca aatgtggtaa 3240

aataactata acggtcctaa ggtagcgagt gagtagtgtt ctggggcggg ggaggacctg 3300

catgagggcc agaataactg aaatctgtgc ttttctgtgt gttgcagcag catgagcgga 3360

agcggctcct ttgagggagg ggtattcagc ccttatctga cggggcgtct cccctcctgg 3420

gcgggagtgc gtcagaatgt gatgggatcc acggtggacg gccggcccgt gcagcccgcg 3480

aactcttcaa ccctgaccta tgcaaccctg agctcttcgt cgttggacgc agctgccgcc 3540

gcagctgctg catctgccgc cagcgccgtg cgcggaatgg ccatgggcgc cggctactac 3600

ggcactctgg tggccaactc gagttccacc aataatcccg ccagcctgaa cgaggagaag 3660

ctgttgctgc tgatggccca gctcgaggcc ttgacccagc gcctgggcga gctgacccag 3720

caggtggctc agctgcagga gcagacgcgg gccgcggttg ccacggtgaa atccaaataa 3780

aaaatgaatc aataaataaa cggagacggt tgttgatttt aacacagagt ctgaatcttt 3840

atttgatttt tcgcgcgcgg taggccctgg accaccggtc tcgatcattg agcacccggt 3900

ggatcttttc caggacccgg tagaggtggg cttggatgtt gaggtacatg ggcatgagcc 3960

cgtcccgggg gtggaggtag ctccattgca gggcctcgtg ctcgggggtg gtgttgtaaa 4020

tcacccagtc atagcagggg cgcagggcat ggtgttgcac aatatctttg aggaggagac 4080

tgatggccac gggcagccct ttggtgtagg tgtttacaaa tctgttgagc tgggagggat 4140

gcatgcgggg ggagatgagg tgcatcttgg cctggatctt gagattggcg atgttaccgc 4200

ccagatcccg cctggggttc atgttgtgca ggaccaccag cacggtgtat ccggtgcact 4260

tggggaattt atcatgcaac ttggaaggga aggcgtgaaa gaatttggcg acgcctttgt 4320

gcccgcccag gttttccatg cactcatcca tgatgatggc gatgggcccg tgggcggcgg 4380

cctgggcaaa gacgtttcgg gggtcggaca catcatagtt gtggtcctgg gtgaggtcat 4440

cataggccat tttaatgaat ttggggcgga gggtgccgga ctgggggaca aaggttccct 4500

cgatcccggg ggcgtagttc ccctcacaga tctgcatctc ccaggctttg agctcggagg 4560

gggggatcat gtccacctgc ggggcgataa agaacacggt ttccggggcg ggggagatga 4620

gctgggccga aagcaagttc cggagcagct gggacttgcc gcagccggtg gggccgtaga 4680

tgaccccgat gaccggctgc aggtggtagt tgagggagag acagctgccg tcctcccgga 4740

ggaggggggc cacctcgttc atcatctcgc gcacgtgcat gttctcgcgc accagttccg 4800

ccaggaggcg ctctcccccc agggatagga gctcctggag cgaggcgaag tttttcagcg 4860

gcttgagtcc gtcggccatg ggcattttgg agagggtttg ttgcaagagt tccaggcggt 4920

cccagagctc ggtgatgtgc tctacggcat ctcgatccag cagacctcct cgtttcgcgg 4980

gttgggacgg ctgcgggagt agggcaccag acgatgggcg tccagcgcag ccagggtccg 5040

gtccttccag ggtcgcagcg tccgcgtcag ggtggtctcc gtcacggtga aggggtgcgc 5100

gccgggctgg gcgcttgcga gggtgcgctt caggctcatc cggctggtcg aaaaccgctc 5160

ccgatcggcg ccctgcgcgt cggccaggta gcaattgacc atgagttcgt agttgagcgc 5220

ctcggccgcg tggcctttgg cgcggagctt acctttggaa gtctgcccgc aggcgggaca 5280

gaggagggac ttgagggcgt agagcttggg ggcgaggaag acggactcgg gggcgtaggc 5340

gtccgcgccg cagtgggcgc agacggtctc gcactccacg agccaggtga ggtcgggctg 5400

gtcggggtca aaaaccagtt tcccgccgtt ctttttgatg cgtttcttac ctttggtctc 5460

catgagctcg tgtccccgct gggtgacaaa gaggctgtcc gtgtccccgt agaccgactt 5520

tatgggccgg tcctcgagcg gtgtgccgcg gtcctcctcg tagaggaacc ccgcccactc 5580

cgagacgaaa gcccgggtcc aggccagcac gaaggaggcc acgtgggacg ggtagcggtc 5640

gttgtccacc agcgggtcca ccttttccag ggtatgcaaa cacatgtccc cctcgtccac 5700

atccaggaag gtgattggct tgtaagtgta ggccacgtga ccgggggtcc cggccggggg 5760

ggtataaaag ggtgcgggtc cctgctcgtc ctcactgtct tccggatcgc tgtccaggag 5820

cgccagctgt tggggtaggt attccctctc gaaggcgggc atgacctcgg cactcaggtt 5880

gtcagtttct agaaacgagg aggatttgat attgacggtg ccggcggaga tgcctttcaa 5940

gagcccctcg tccatctggt cagaaaagac gatcttttttg ttgtcgagct tggtggcgaa 6000

ggagccgtag agggcgttgg agaggagctt ggcgatggag cgcatggtct ggttttttttc 6060

cttgtcggcg cgctccttgg cggcgatgtt gagctgcacg tactcgcgcg ccacgcactt 6120

ccattcgggg aagacggtgg tcagctcgtc gggcacgatt ctgacctgcc agccccgatt 6180

atgcagggtg atgaggtcca cactggtggc cacctcgccg cgcaggggct cattagtcca 6240

gcagaggcgt ccgcccttgc gcgagcagaa ggggggcagg gggtccagca tgacctcgtc 6300

ggggggggtcg gcatcgatgg tgaagatgcc gggcaggagg tcggggtcaa agtagctgat 6360

ggaagtggcc agatcgtcca gggcagcttg ccattcgcgc acggccagcg cgcgctcgta 6420

gggactgagg ggcgtgcccc agggcatggg atgggtaagc gcggaggcgt acatgccgca 6480

gatgtcgtag acgtagaggg gctcctcgag gatgccgatg taggtggggt agcagcgccc 6540

cccgcggatg ctggcgcgca cgtagtcata cagctcgtgc gaggggggcga ggagccccgg 6600

gcccaggttg gtgcgactgg gcttttcggc gcggtagacg atctggcgga aaatggcatg 6660

cgagttggag gagatggtgg gcctttggaa gatgttgaag tgggcgtggg gcagtccgac 6720

cgagtcgcgg atgaagtggg cgtaggagtc ttgcagcttg gcgacgagct cggcggtgac 6780

taggacgtcc agagcgcagt agtcgagggt ctcctggatg atgtcatact tgagctgtcc 6840

cttttgtttc cacagctcgc ggttgagaag gaactcttcg cggtccttcc agtactcttc 6900

gagggggaac ccgtcctgat ctgcacggta agagcctagc atgtagaact ggttgacggc 6960

cttgtaggcg cagcagccct tctccacggg gagggcgtag gcctgggcgg ccttgcgcag 7020

ggaggtgtgc gtgagggcga aagtgtccct gaccatgacc ttgaggaact ggtgcttgaa 7080

gtcgatatcg tcgcagcccc cctgctccca gagctggaag tccgtgcgct tcttgtaggc 7140

ggggttgggc aaagcgaaag taacatcgtt gaagaggatc ttgcccgcgc ggggcataaa 7200

gttgcgagtg atgcggaaag gttggggcac ctcggcccgg ttgttgatga cctgggcggc 7260

gagcacgatc tcgtcgaagc cgttgatgtt gtggcccacg atgtagagtt ccacgaatcg 7320

cggacggccc ttgacgtggg gcagtttctt gagctcctcg taggtgagct cgtcggggtc 7380

gctgagcccg tgctgctcga gcgcccagtc ggcgagatgg gggttggcgc ggaggaagga 7440

agtccagaga tccacggcca gggcggtttg cagacggtcc cggtactgac ggaactgctg 7500

cccgacggcc atttttttcgg gggtgacgca gtagaaggtg cgggggtccc cgtgccagcg 7560

atcccatttg agctggaggg cgagatcgag ggcgagctcg acgagccggt cgtccccgga 7620

gagtttcatg accagcatga aggggacgag ctgcttgccg aaggacccca tccaggtgta 7680

ggtttccaca tcgtaggtga ggaagagcct ttcggtgcga ggatgcgagc cgatggggaa 7740

gaactggatc tcctgccacc aattggagga atggctgttg atgtgatgga agtagaaatg 7800

ccgacggcgc gccgaacact cgtgcttgtg tttatacaag cggccacagt gctcgcaacg 7860

ctgcacggga tgcacgtgct gcacgagctg tacctgagtt cctttgacga ggaatttcag 7920

tgggaagtgg agtcgtggcg cctgcatctc gtgctgtact acgtcgtggt ggtcggcctg 7980

gccctcttct gcctcgatgg tggtcatgct gacgagcccg cgcgggaggc aggtccagac 8040

ctcggcgcga gcgggtcgga gagcgaggac gagggcgcgc aggccggagc tgtccagggt 8100

cctgagacgc tgcggagtca ggtcagtggg cagcggcggc gcgcggttga cttgcaggag 8160

tttttccagg gcgcgcggga ggtccagatg gtacttgatc tccaccgcgc cattggtggc 8220

gacgtcgatg gcttgcaggg tcccgtgccc ctggggtgtg accaccgtcc cccgtttctt 8280

cttgggcggc tggggcgacg ggggcggtgc ctcttccatg gttagaagcg gcggcgagga 8340

cgcgcgccgg gcggcagggg cggctcgggg cccggaggca ggggcggcag gggcacgtcg 8400

gcgccgcgcg cgggtaggtt ctggtactgc gcccggagaa gactggcgtg agcgacgacg 8460

cgacggttga cgtcctggat ctgacgcctc tgggtgaagg ccacgggacc cgtgagtttg 8520

aacctgaaag agagttcgac agaatcaatc tcggtatcgt tgacggcggc ctgccgcagg 8580

atctcttgca cgtcgcccga gttgtcctgg taggcgatct cggtcatgaa ctgctcgatc 8640

tcctcctctt gaaggtctcc gcggccggcg cgctccacgg tggccgcgag gtcgttggag 8700

atgcggccca tgagctgcga gaaggcgttc atgcccgcct cgttccagac gcggctgtag 8760

accacgacgc cctcgggatc gcgggcgcgc atgaccacct gggcgaggtt gagctccacg 8820

tggcgcgtga agaccgcgta gttgcagagg cgctggtaga ggtagttgag cgtggtggcg 8880

atgtgctcgg tgacgaagaa atacatgatc cagcggcgga gcggcatctc gctgacgtcg 8940

cccagcgcct ccaaacgttc catggcctcg taaaagtcca cggcgaagtt gaaaaactgg 9000

gagttgcgcg ccgagacggt caactcctcc tccagaagac ggatgagctc ggcgatggtg 9060

gcgcgcacct cgcgctcgaa ggcccccggg agttcctcca cttcctcttc ttcctcctcc 9120

actaacatct cttctacttc ctcctcaggc ggcagtggtg gcgggggagg gggcctgcgt 9180

cgccggcggc gcacgggcag acggtcgatg aagcgctcga tggtctcgcc gcgccggcgt 9240

cgcatggtct cggtgacggc gcgcccgtcc tcgcggggcc gcagcgtgaa gacgccgccg 9300

cgcatctcca ggtggccggg ggggtccccg ttgggcaggg agagggcgct gacgatgcat 9360

cttatcaatt gccccgtagg gactccgcgc aaggacctga gcgtctcgag atccacggga 9420

tctgaaaacc gctgaacgaa ggcttcgagc cagtcgcagt cgcaaggtag gctgagcacg 9480

gtttcttctg gcgggtcatg ttggttggga gcggggcggg cgatgctgct ggtgatgaag 9540

ttgaaatagg cggttctgag acggcggatg gtggcgagga gcaccaggtc tttgggcccg 9600

gcttgctgga tgcgcagacg gtcggccatg ccccaggcgt ggtcctgaca cctggccagg 9660

tccttgtagt agtcctgcat gagccgctcc acgggcacct cctcctcgcc cgcgcggccg 9720

tgcatgcgcg tgagcccgaa gccgcgctgg ggctggacga gcgccaggtc ggcgacgacg 9780

cgctcggcga ggatggcttg ctggatctgg gtgagggtgg tctggaagtc atcaaagtcg 9840

acgaagcggt ggtaggctcc ggtgttgatg gtgtaggagc agttggccat gacggaccag 9900

ttgacggtct ggtggcccgg acgcacgagc tcgtggtact tgaggcgcga gtaggcgcgc 9960

gtgtcgaaga tgtagtcgtt gcaggtgcgc accaggtact ggtagccgat gaggaagtgc 10020

ggcggcggct ggcggtagag cggccatcgc tcggtggcgg gggcgccggg cgcgaggtcc 10080

tcgagcatgg tgcggtggta gccgtagatg tacctggaca tccaggtgat gccggcggcg 10140

gtggtggagg cgcgcgggaa ctcgcggacg cggttccaga tgttgcgcag cggcaggaag 10200

tagttcatgg tgggcacggt ctggcccgtg aggcgcgcgc agtcgtggat gctctatacg 10260

ggcaaaaacg aaagcggtca gcggctcgac tccgtggcct ggaggctaag cgaacgggtt 10320

gggctgcgcg tgtaccccgg ttcgaatctc gaatcaggct ggagccgcag ctaacgtggt 10380

attggcactc ccgtctcgac ccaagcctgc accaaccctc caggatacgg aggcgggtcg 10440

ttttgcaact ttttttgga ggccggatga gactagtaag cgcggaaagc ggccgaccgc 10500

gatggctcgc tgccgtagtc tggagaagaa tcgccagggt tgcgttgcgg tgtgccccgg 10560

ttcgaggccg gccggattcc gcggctaacg agggcgtggc tgccccgtcg tttccaagac 10620

cccatagcca gccgacttct ccagttacgg agcgagcccc tcttttgttt tgtttgtttt 10680

tgccagatgc atcccgtact gcggcagatg cgcccccacc accctccacc gcaacaacag 10740

ccccctccac agccggcgct tctgcccccg ccccagcagc aacttccagc cacgaccgcc 10800

gcggccgccg tgagcggggc tggacagagt tatgatcacc agctggcctt ggaagagggc 10860

gaggggctgg cgcgcctggg ggcgtcgtcg ccggagcggc acccgcgcgt gcagatgaaa 10920

agggacgctc gcgaggccta cgtgcccaag cagaacctgt tcagagacag gagcggcgag 10980

gagcccgagg agatgcgcgc ggcccggttc cacgcggggc gggagctgcg gcgcggcctg 11040

gaccgaaaga gggtgctgag ggacgaggat ttcgaggcgg acgagctgac ggggatcagc 11100

cccgcgcgcg cgcacgtggc cgcggccaac ctggtcacgg cgtacgagca gaccgtgaag 11160

gaggagagca acttccaaaa atccttcaac aaccacgtgc gcaccctgat cgcgcgcgag 11220

gaggtgaccc tgggcctgat gcacctgtgg gacctgctgg aggccatcgt gcagaacccc 11280

accagcaagc cgctgacggc gcagctgttc ctggtggtgc agcatagtcg ggacaacgaa 11340

gcgttcaggg aggcgctgct gaatatcacc gagcccgagg gccgctggct cctggacctg 11400

gtgaacattc tgcagagcat cgtggtgcag gagcgcgggc tgccgctgtc cgagaagctg 11460

gcggccatca acttctcggt gctgagtttg ggcaagtact acgctaggaa gatctacaag 11520

accccgtacg tgcccataga caaggaggtg aagatcgacg ggttttacat gcgcatgacc 11580

ctgaaagtgc tgaccctgag cgacgatctg ggggtgtacc gcaacgacag gatgcaccgt 11640

gcggtgagcg ccagcaggcg gcgcgagctg agcgaccagg agctgatgca tagtctgcag 11700

cgggccctga ccggggccgg gaccgagggg gagagctact ttgacatggg cgcggacctg 11760

cactggcagc ccagccgccg ggccttggag gcggcggcag gaccctacgt agaagaggtg 11820

gacgatgagg tggacgagga gggcgagtac ctggaagact gatggcgcga ccgtattttt 11880

gctagatgca acaacaacag ccacctcctg atcccgcgat gcgggcggcg ctgcagagcc 11940

agccgtccgg cattaactcc tcggacgatt ggacccaggc catgcaacgc atcatggcgc 12000

tgacgacccg caaccccgaa gcctttagac agcagcccca ggccaaccgg ctctcggcca 12060

tcctggaggc cgtggtgccc tcgcgctcca accccacgca cgagaaggtc ctggccatcg 12120

tgaacgcgct ggtggagaac aaggccatcc gcggcgacga ggccggcctg gtgtacaacg 12180

cgctgctgga gcgcgtggcc cgctacaaca gcaccaacgt gcagaccaac ctggaccgca 12240

tggtgaccga cgtgcgcgag gccgtggccc agcgcgagcg gttccaccgc gagtccaacc 12300

tgggatccat ggtggcgctg aacgccttcc tcagcaccca gcccgccaac gtgccccggg 12360

gccaggagga ctacaccaac ttcatcagcg ccctgcgcct gatggtgacc gaggtgcccc 12420

agagcgaggt gtaccagtcc gggccggact acttcttcca gaccagtcgc cagggcttgc 12480

agaccgtgaa cctgagccag gctttcaaga acttgcaggg cctgtggggc gtgcaggccc 12540

cggtcgggga ccgcgcgacg gtgtcgagcc tgctgacgcc gaactcgcgc ctgctgctgc 12600

tgctggtggc ccccttcacg gacagcggca gcatcaaccg caactcgtac ctgggctacc 12660

tgattaacct gtaccgcgag gccatcggcc aggcgcacgt ggacgagcag acctaccagg 12720

agatcaccca cgtgagccgc gccctgggcc aggacgaccc gggcaacctg gaagccaccc 12780

tgaacttttt gctgaccaac cggtcgcaga agatcccgcc ccagtacgcg ctcagcaccg 12840

aggaggagcg catcctgcgt tacgtgcagc agagcgtggg cctgttcctg atgcaggagg 12900

gggccacccc cagcgccgcg ctcgacatga ccgcgcgcaa catggagccc agcatgtacg 12960

ccagcaaccg cccgttcatc aataaactga tggactactt gcatcgggcg gccgccatga 13020

actctgacta tttcaccaac gccatcctga atccccactg gctcccgccg ccggggttct 13080

acacgggcga gtacgacatg cccgacccca atgacgggtt cctgtgggac gatgtggaca 13140

gcagcgtgtt ctcccccccga ccgggtgcta acgagcgccc cttgtggaag aaggaaggca 13200

gcgaccgacg cccgtcctcg gcgctgtccg gccgcgaggg tgctgccgcg gcggtgcccg 13260

aggccgccag tcctttcccg agcttgccct tctcgctgaa cagtatccgc agcagcgagc 13320

tgggcaggat cacgcgcccg cgcttgctgg gcgaagagga gtacttgaat gactcgctgt 13380

tgagacccga gcgggagaag aacttcccca ataacgggat agaaagcctg gtggacaaga 13440

tgagccgctg gaagacgtat gcgcaggagc acagggacga tccccgggcg tcgcaggggg 13500

ccacgagccg gggcagcgcc gcccgtaaac gccggtggca cgacaggcag cggggacaga 13560

tgtgggacga tgaggactcc gccgacgaca gcagcgtgtt ggacttgggt gggagtggta 13620

acccgttcgc tcacctgcgc ccccgtatcg ggcgcatgat gtaagagaaa ccgaaaataa 13680

atgatactca ccaaggccat ggcgaccagc gtgcgttcgt ttcttctctg ttgttgttgt 13740

atctagtatg atgaggcgtg cgtacccgga gggtcctcct ccctcgtacg agagcgtgat 13800

gcagcaggcg atggcggcgg cggcgatgca gcccccgctg gaggctcctt acgtgccccc 13860

gcggtacctg gcgcctacgg aggggcggaa cagcattcgt tactcggagc tggcaccctt 13920

gtacgatacc acccggttgt acctggtgga caacaagtcg gcggacatcg cctcgctgaa 13980

ctaccagaac gaccacagca acttcctgac caccgtggtg cagaacaatg acttcacccc 14040

cacggaggcc agcacccaga ccatcaactt tgacgagcgc tcgcggtggg gcggccagct 14100

gaaaaccatc atgcacacca acatgcccaa cgtgaacgag ttcatgtaca gcaacaagtt 14160

caaggcgcgg gtgatggtct cccgcaagac ccccaatggg gtgacagtga cagaggatta 14220

tgatggtagt caggatgagc tgaagtatga atgggtggaa tttgagctgc ccgaaggcaa 14280

cttctcggtg accatgacca tcgacctgat gaacaacgcc atcatcgaca attacttggc 14340

ggtggggcgg cagaacgggg tgctggagag cgacatcggc gtgaagttcg acactaggaa 14400

cttcaggctg ggctgggacc ccgtgaccga gctggtcatg cccggggtgt acaccaacga 14460

ggctttccat cccgatattg tcttgctgcc cggctgcggg gtggacttca ccgagagccg 14520

cctcagcaac ctgctgggca ttcgcaagag gcagcccttc caggaaggct tccagatcat 14580

gtacgaggat ctggaggggg gcaacatccc cgcgctcctg gatgtcgacg cctatgagaa 14640

aagcaaggag gatgcagcag ctgaagcaac tgcagccgta gctaccgcct ctaccgaggt 14700

caggggcgat aattttgcaa gcgccgcagc agtggcagcg gccgaggcgg ctgaaaccga 14760

aagtaagata gtcattcagc cggtggagaa ggatagcaag aacaggagct acaacgtact 14820

accggacaag ataaacaccg cctaccgcag ctggtaccta gcctacaact atggcgaccc 14880

cgagaagggc gtgcgctcct ggacgctgct caccacctcg gacgtcacct gcggcgtgga 14940

gcaagtctac tggtcgctgc ccgacatgat gcaagacccg gtcaccttcc gctccacgcg 15000

tcaagttagc aactacccgg tggtgggcgc cgagctcctg cccgtctact ccaagagctt 15060

cttcaacgag caggccgtct actcgcagca gctgcgcgcc ttcacctcgc ttacgcacgt 15120

cttcaaccgc ttccccgaga accagatcct cgtccgcccg cccgcgccca ccattaccac 15180

cgtcagtgaa aacgttcctg ctctcacaga tcacgggacc ctgccgctgc gcagcagtat 15240

ccggggagtc cagcgcgtga ccgttactga cgccagacgc cgcacctgcc cctacgtcta 15300

caaggccctg ggcatagtcg cgccgcgcgt cctctcgagc cgcaccttct aaatgtccat 15360

tctcatctcg cccagtaata acaccggttg gggcctgcgc gcgcccagca agatgtacgg 15420

aggcgctcgc caacgctcca cgcaacaccc cgtgcgcgtg cgcgggcact tccgcgctcc 15480

ctggggcgcc ctcaagggcc gcgtgcggtc gcgcaccacc gtcgacgacg tgatcgacca 15540

ggtggtggcc gacgcgcgca actacacccc cgccgccgcg cccgtctcca ccgtggacgc 15600

cgtcatcgac agcgtggtgg ccgacgcgcg ccggtacgcc cgcgccaaga gccggcggcg 15660

gcgcatcgcc cggcggcacc ggagcacccc cgccatgcgc gcggcgcgag ccttgctgcg 15720

cagggccagg cgcacgggac gcagggccat gctcagggcg gccagacgcg cggcttcagg 15780

cgccagcgcc ggcaggaccc ggagacgcgc ggccacggcg gcggcagcgg ccatcgccag 15840

catgtcccgc ccgcggcgag ggaacgtgta ctgggtgcgc gacgccgcca ccggtgtgcg 15900

cgtgcccgtg cgcacccgcc cccctcgcac ttgaagatgt tcacttcgcg atgttgatgt 15960

gtcccagcgg cgaggaggat gtccaagcgc aaattcaagg aagagatgct ccaggtcatc 16020

gcgcctgaga tctacggccc tgcggtggtg aaggaggaaa gaaagccccg caaaatcaag 16080

cgggtcaaaa aggacaaaaa ggaagaagaa agtgatgtgg acggattggt ggagtttgtg 16140

cgcgagttcg ccccccggcg gcgcgtgcag tggcgcgggc ggaaggtgca accggtgctg 16200

agacccggca ccaccgtggt cttcacgccc ggcgagcgct ccggcaccgc ttccaagcgc 16260

tcctacgacg aggtgtacgg ggatgatgat attctggagc aggcggccga gcgcctgggc 16320

gagtttgctt acggcaagcg cagccgttcc gcaccgaagg aagaggcggt gtccatcccg 16380

ctggaccacg gcaaccccac gccgagcctc aagcccgtga ccttgcagca ggtgctgccg 16440

accgcggcgc cgcgccgggg gttcaagcgc gagggcgagg atctgtaccc caccatgcag 16500

ctgatggtgc ccaagcgcca gaagctggaa gacgtgctgg agaccatgaa ggtggacccg 16560

gacgtgcagc ccgaggtcaa ggtgcggccc atcaagcagg tggccccggg cctgggcgtg 16620

cagaccgtgg acatcaagat tcccacggag cccatggaaa cgcagaccga gcccatgatc 16680

aagcccagca ccagcaccat ggaggtgcag acggatccct ggatgccatc ggctcctagt 16740

cgaagacccc ggcgcaagta cggcgcggcc agcctgctga tgcccaacta cgcgctgcat 16800

ccttccatca tccccacgcc gggctaccgc ggcacgcgct tctaccgcgg tcataccagc 16860

agccgccgcc gcaagaccac cactcgccgc cgccgtcgcc gcaccgccgc tgcaaccacc 16920

cctgccgccc tggtgcggag agtgtaccgc cgcggccgcg cacctctgac cctgccgcgc 16980

gcgcgctacc acccgagcat cgccatttaa actttcgcct gctttgcaga tcaatggccc 17040

tcacatgccg ccttcgcgtt cccattacgg gctaccgagg aagaaaaccg cgccgtagaa 17100

ggctggcggg gaacgggatg cgtcgccacc accaccggcg gcggcgcgcc atcagcaagc 17160

ggttgggggg aggcttcctg cccgcgctga tccccatcat cgccgcggcg atcggggcga 17220

tccccggcat tgcttccgtg gcggtgcagg cctctcagcg ccactgagac acacttggaa 17280

acatcttgta ataaaccaat ggactctgac gctcctggtc ctgtgatgtg ttttcgtaga 17340

cagatggaag acatcaattt ttcgtccctg gctccgcgac acggcacgcg gccgttcatg 17400

ggcacctgga gcgacatcgg caccagccaa ctgaacgggg gcgccttcaa ttggagcagt 17460

ctctggagcg ggcttaagaa tttcgggtcc acgcttaaaa cctatggcag caaggcgtgg 17520

aacagcacca cagggcaggc gctgagggat aagctgaaag agcagaactt ccagcagaag 17580

gtggtcgatg ggctcgcctc gggcatcaac ggggtggtgg acctggccaa ccaggccgtg 17640

cagcggcaga tcaacagccg cctggacccg gtgccgcccg ccggctccgt ggagatgccg 17700

caggtggagg aggagctgcc tcccctggac aagcggggcg agaagcgacc ccgccccgat 17760

gcggaggaga cgctgctgac gcacacggac gagccgcccc cgtacgagga ggcggtgaaa 17820

ctgggtctgc ccaccacgcg gcccatcgcg cccctggcca ccggggtgct gaaacccgaa 17880

aagcccgcga ccctggactt gcctcctccc cagccttccc gcccctctac agtggctaag 17940

cccctgccgc cggtggccgt ggcccgcgcg cgacccgggg gcaccgcccg ccctcatgcg 18000

aactggcaga gcactctgaa cagcatcgtg ggtctgggag tgcagagtgt gaagcgccgc 18060

cgctgctatt aaacctaccg tagcgcttaa cttgcttgtc tgtgtgtgta tgtattatgt 18120

cgccgccgcc gctgtccacc agaaggagga gtgaagaggc gcgtcgccga gttgcaagat 18180

ggccacccca tcgatgctgc cccagtgggc gtacatgcac atcgccggac aggacgcttc 18240

ggagtacctg agtccgggtc tggtgcagtt tgcccgcgcc acagacacct acttcagtct 18300

ggggaacaag tttaggaacc ccacggtggc gcccacgcac gatgtgacca ccgaccgcag 18360

ccagcggctg acgctgcgct tcgtgcccgt ggaccgcgag gacaacacct actcgtacaa 18420

agtgcgctac acgctggccg tgggcgacaa ccgcgtgctg gacatggcca gcacctactt 18480

tgacatccgc ggcgtgctgg atcggggccc tagcttcaaa ccctactccg gcaccgccta 18540

caacagtctg gcccccaagg gagcacccaa cacttgtcag tggacatata aagccgatgg 18600

tgaaactgcc acagaaaaaa cctatacata tggaaatgca cccgtgcagg gcattaacat 18660

cacaaaagat ggtattcaac ttggaactga caccgatgat cagccaatct acgcagataa 18720

aacctatcag cctgaacctc aagtgggtga tgctgaatgg catgacatca ctggtactga 18780

tgaaaagtat ggaggcagag ctcttaagcc tgataccaaa atgaagcctt gttatggttc 18840

ttttgccaag cctactaata aagaaggagg tcaggcaaat gtgaaaacag gaacaggcac 18900

tactaaagaa tatgacatag acatggcttt ctttgacaac agaagtgcgg ctgctgctgg 18960

cctagctcca gaaattgttt tgtatactga aaatgtggat ttggaaactc cagataccca 19020

tattgtatac aaagcaggca cagatgacag cagctcttct attaatttgg gtcagcaagc 19080

catgcccaac agacctaact acattggttt cagagacaac tttatcgggc tcatgtacta 19140

caacagcact ggcaatatgg gggtgctggc cggtcaggct tctcagctga atgctgtggt 19200

tgacttgcaa gacagaaaca ccgagctgtc ctaccagctc ttgcttgact ctctgggtga 19260

cagaacccgg tatttcagta tgtggaatca ggcggtggac agctatgatc ctgatgtgcg 19320

cattattgaa aatcatggtg tggaggatga acttcccaac tattgtttcc ctctggatgc 19380

tgttggcaga acagatactt atcagggaat taaggctaat ggaactgatc aaaccacatg 19440

gaccaaagat gacagtgtca atgatgctaa tgagataggc aagggtaatc cattcgccat 19500

ggaaatcaac atccaagcca acctgtggag gaacttcctc tacgccaacg tggccctgta 19560

cctgcccgac tcttacaagt acacgccggc caatgttacc ctgcccacca acaccaacac 19620

ctacgattac atgaacggcc gggtggtggc gccctcgctg gtggactcct acatcaacat 19680

cggggcgcgc tggtcgctgg atcccatgga caacgtgaac cccttcaacc accaccgcaa 19740

tgcggggctg cgctaccgct ccatgctcct gggcaacggg cgctacgtgc ccttccacat 19800

ccaggtgccc cagaaatttt tcgccatcaa gagcctcctg ctcctgcccg ggtcctacac 19860

ctacgagtgg aacttccgca aggacgtcaa catgatcctg cagagctccc tcggcaacga 19920

cctgcgcacg gacggggcct ccatctcctt caccagcatc aacctctacg ccaccttctt 19980

ccccatggcg cacaacacgg cctccacgct cgaggccatg ctgcgcaacg acaccaacga 20040

ccagtccttc aacgactacc tctcggcggc caacatgctc taccccatcc cggccaacgc 20100

caccaacgtg cccatctcca tcccctcgcg caactgggcc gccttccgcg gctggtcctt 20160

cacgcgtctc aagaccaagg agacgccctc gctgggctcc gggttcgacc cctacttcgt 20220

ctactcgggc tccatccccc acctcgacgg caccttctac ctcaaccaca ccttcaagaa 20280

ggtctccatc accttcgact cctccgtcag ctggcccggc aacgaccggc tcctgacgcc 20340

caacgagttc gaaatcaagc gcaccgtcga cggcgagggc tacaacgtgg cccagtgcaa 20400

catgaccaag gactggttcc tggtccagat gctggcccac tacaacatcg gctaccaggg 20460

cttctacgtg cccgagggct acaaggaccg catgtactcc ttcttccgca acttccagcc 20520

catgagccgc caggtggtgg acgaggtcaa ctacaaggac taccaggccg tcaccctggc 20580

ctaccagcac aacaactcgg gcttcgtcgg ctacctcgcg cccaccatgc gccagggcca 20640

gccctacccc gccaactacc cctacccgct catcggcaag agcgccgtca ccagcgtcac 20700

ccagaaaaag ttcctctgcg acagggtcat gtggcgcatc cccttctcca gcaacttcat 20760

gtccatgggc gcgctcaccg acctcggcca gaacatgctc tatgccaact ccgcccacgc 20820

gctagacatg aatttcgaag tcgaccccat ggatgagtcc acccttctct atgttgtctt 20880

cgaagtcttc gacgtcgtcc gagtgcacca gccccaccgc ggcgtcatcg aggccgtcta 20940

cctgcgcacc cccttctcgg ccggtaacgc caccacctaa gctcttgctt cttgcaagcc 21000

atggccgcgg gctccggcga gcaggagctc agggccatca tccgcgacct gggctgcggg 21060

ccctacttcc tgggcacctt cgataagcgc ttcccgggat tcatggcccc gcacaagctg 21120

gcctgcgcca tcgtcaacac ggccggccgc gagaccgggg gcgagcactg gctggccttc 21180

gcctggaacc cgcgctcgaa cacctgctac ctcttcgacc ccttcgggtt ctcggacgag 21240

cgcctcaagc agatctacca gttcgagtac gagggcctgc tgcgccgcag cgccctggcc 21300

accgaggacc gctgcgtcac cctggaaaag tccacccaga ccgtgcaggg tccgcgctcg 21360

gccgcctgcg ggctcttctg ctgcatgttc ctgcacgcct tcgtgcactg gcccgaccgc 21420

cccatggaca agaaccccac catgaacttg ctgacggggg tgcccaacgg catgctccag 21480

tcgccccagg tggaacccac cctgcgccgc aaccaggagg cgctctaccg cttcctcaac 21540

tcccactccg cctactttcg ctcccaccgc gcgcgcatcg agaaggccac cgccttcgac 21600

cgcatgaatc aagacatgta aaccgtgtgt gtatgttaaa tgtctttaat aaacagcact 21660

ttcatgttac acatgcatct gagatgattt atttagaaat cgaaagggtt ctgccgggtc 21720

tcggcatggc ccgcgggcag ggacacgttg cggaactggt acttggccag ccacttgaac 21780

tcggggatca gcagtttggg cagcggggtg tcggggaagg agtcggtcca cagcttccgc 21840

gtcagttgca gggcgcccag caggtcgggc gcggagatct tgaaatcgca gttgggaccc 21900

gcgttctgcg cgcgggagtt gcggtacacg gggttgcagc actggaacac catcagggcc 21960

gggtgcttca cgctcgccag caccgtcgcg tcggtgatgc tctccacgtc gaggtcctcg 22020

gcgttggcca tcccgaaggg ggtcatcttg caggtctgcc ttcccatggt gggcacgcac 22080

ccgggcttgt ggttgcaatc gcagtgcagg gggatcagca tcatctgggc ctggtcggcg 22140

ttcatccccg ggtacatggc cttcatgaaa gcctccaatt gcctgaacgc ctgctgggcc 22200

ttggctccct cggtgaagaa gaccccgcag gacttgctag agaactggtt ggtggcgcac 22260

ccggcgtcgt gcacgcagca gcgcgcgtcg ttgttggcca gctgcaccac gctgcgcccc 22320

cagcggttct gggtgatctt ggcccggtcg gggttctcct tcagcgcgcg ctgcccgttc 22380

tcgctcgcca catccatctc gatcatgtgc tccttctgga tcatggtggt cccgtgcagg 22440

caccgcagct tgccctcggc ctcggtgcac ccgtgcagcc acagcgcgca cccggtgcac 22500

tcccagttct tgtgggcgat ctgggaatgc gcgtgcacga agccctgcag gaagcggccc 22560

atcatggtgg tcagggtctt gttgctagtg aaggtcagcg gaatgccgcg gtgctcctcg 22620

ttgatgtaca ggtggcagat gcggcggtac acctcgccct gctcgggcat cagctggaag 22680

ttggctttca ggtcggtctc cacgcggtag cggtccatca gcatagtcat gatttccata 22740

cccttctccc aggccgagac gatgggcagg ctcatagggt tcttcaccat catcttagcg 22800

ctagcagccg cggccagggg gtcgctctcg tccagggtct caaagctccg cttgccgtcc 22860

ttctcggtga tccgcaccgg ggggtagctg aagcccacgg ccgccagctc ctcctcggcc 22920

tgtctttcgt cctcgctgtc ctggctgacg tcctgcagga ccacatgctt ggtcttgcgg 22980

ggtttcttct tgggcggcag cggcggcgga gatgttggag atggcgaggg ggagcgcgag 23040

ttctcgctca ccactactat ctcttcctct tcttggtccg aggccacgcg gcggtaggta 23100

tgtctcttcg ggggcagagg cggaggcgac gggctctcgc cgccgcgact tggcggatgg 23160

ctggcagagc cccttccgcg ttcgggggtg cgctcccggc ggcgctctga ctgacttcct 23220

ccgcggccgg ccattgtgtt ctcctaggga ggaacaacaa gcatggagac tcagccatcg 23280

ccaacctcgc catctgcccc caccgccgac gagaagcagc agcagcagaa tgaaagctta 23340

accgccccgc cgcccagccc cgccacctcc gacgcggccg tcccagacat gcaagagatg 23400

gaggaatcca tcgagattga cctgggctat gtgacgcccg cggagcacga ggaggagctg 23460

gcagtgcgct tttcacaaga agagatacac caagaacagc cagagcagga agcagagaat 23520

gagcagagtc aggctgggct cgagcatgac ggcgactacc tccacctgag cgggggggag 23580

gacgcgctca tcaagcatct ggcccggcag gccaccatcg tcaaggatgc gctgctcgac 23640

cgcaccgagg tgcccctcag cgtggaggag ctcagccgcg cctacgagtt gaacctcttc 23700

tcgccgcgcg tgccccccaa gcgccagccc aatggcacct gcgagcccaa cccgcgcctc 23760

aacttctacc cggtcttcgc ggtgcccgag gccctggcca cctaccacat ctttttcaag 23820

aaccaaaaga tccccgtctc ctgccgcgcc aaccgcaccc gcgccgacgc ccttttcaac 23880

ctgggtcccg gcgcccgcct acctgatatc gcctccttgg aagaggttcc caagatcttc 23940

gagggtctgg gcagcgacga gactcgggcc gcgaacgctc tgcaaggaga aggaggagag 24000

catgagcacc acagcgccct ggtcgagttg gaaggcgaca acgcgcggct ggcggtgctc 24060

aaacgcacgg tcgagctgac ccatttcgcc tacccggctc tgaacctgcc ccccaaagtc 24120

atgagcgcgg tcatggacca ggtgctcatc aagcgcgcgt cgcccatctc cgaggacgag 24180

ggcatgcaag actccgagga gggcaagccc gtggtcagcg acgagcagct ggcccggtgg 24240

ctgggtccta atgctagtcc ccagagtttg gaagagcggc gcaaactcat gatggccgtg 24300

gtcctggtga ccgtggagct ggagtgcctg cgccgcttct tcgccgacgc ggagaccctg 24360

cgcaaggtcg aggagaacct gcactacctc ttcaggcacg ggttcgtgcg ccaggcctgc 24420

aagatctcca acgtggagct gaccaacctg gtctcctaca tgggcatctt gcacgagaac 24480

cgcctggggc agaacgtgct gcacaccacc ctgcgcgggg aggcccggcg cgactacatc 24540

cgcgactgcg tctacctcta cctctgccac acctggcaga cgggcatggg cgtgtggcag 24600

cagtgtctgg aggagcagaa cctgaaagag ctctgcaagc tcctgcagaa gaacctcaag 24660

ggtctgtgga ccgggttcga cgagcgcacc accgcctcgg acctggccga cctcattttc 24720

cccgagcgcc tcaggctgac gctgcgcaac ggcctgcccg actttatgag ccaaagcatg 24780

ttgcaaaact ttcgctcttt catcctcgaa cgctccggaa tcctgcccgc cacctgctcc 24840

gcgctgccct cggacttcgt gccgctgacc ttccgcgagt gccccccgcc gctgtggagc 24900

cactgctacc tgctgcgcct ggccaactac ctggcctacc actcggacgt gatcgaggac 24960

gtcagcggcg agggcctgct cgagtgccac tgccgctgca acctctgcac gccgcaccgc 25020

tccctggcct gcaaccccca gctgctgagc gagacccaga tcatcggcac cttcgagttg 25080

caagggccca gcgaaggcga gggttcagcc gccaaggggg gtctgaaact caccccgggg 25140

ctgtggacct cggcctactt gcgcaagttc gtgcccgagg actaccatcc cttcgagatc 25200

aggttctacg aggaccaatc ccatccgccc aaggccgagc tgtcggcctg cgtcatcacc 25260

caggggggcga tcctggccca attgcaagcc atccagaaat cccgccaaga attcttgctg 25320

aaaaagggcc gcggggtcta cctcgacccc cagaccggtg aggagctcaa ccccggcttc 25380

ccccaggatg ccccgaggaa acaagaagct gaaagtggag ctgccgcccg tggaggattt 25440

ggaggaagac tgggagaaca gcagtcaggc agaggaggag gagatggagg aagactggga 25500

cagcactcag gcagaggagg acagcctgca agacagtctg gaggaagacg aggaggaggc 25560

agaggaggag gtggaagaag cagccgccgc cagaccgtcg tcctcggcgg gggagaaagc 25620

aagcagcacg gataccatct ccgctccggg tcggggtccc gctcgaccac acagtagatg 25680

ggacgagacc ggacgattcc cgaaccccac cacccagacc ggtaagaagg agcggcaggg 25740

atacaagtcc tggcgggggc acaaaaacgc catcgtctcc tgcttgcagg cctgcggggg 25800

caacatctcc ttcacccggc gctacctgct cttccaccgc ggggtgaact ttccccgcaa 25860

catcttgcat tactaccgtc acctccacag cccctactac ttccaagaag aggcagcagc 25920

agcagaaaaa gaccagcaga aaaccagcag ctagaaaatc cacagcggcg gcagcaggtg 25980

gactgaggat cgcggcgaac gagccggcgc aaacccggga gctgaggaac cggatctttc 26040

ccaccctcta tgccatcttc cagcagagtc gggggcagga gcaggaactg aaagtcaaga 26100

accgttctct gcgctcgctc acccgcagtt gtctgtatca caagagcgaa gaccaacttc 26160

agcgcactct cgaggacgcc gaggctctct tcaacaagta ctgcgcgctc actcttaaag 26220

agtagcccgc gcccgcccag tcgcagaaaa aggcgggaat tacgtcacct gtgcccttcg 26280

ccctagccgc ctccacccat catcatgagc aaagagattc ccacgcctta catgtggagc 26340

taccagcccc agatgggcct ggccgccggt gccgcccagg actactccac ccgcatgaat 26400

tggctcagcg ccgggcccgc gatgatctca cgggtgaatg acatccgcgc ccaccgaaac 26460

cagatactcc tagaacagtc agcgctcacc gccacgcccc gcaatcacct caatccgcgt 26520

aattggcccg ccgccctggt gtaccaggaa attccccagc ccacgaccgt actacttccg 26580

cgagacgccc aggccgaagt ccagctgact aactcaggtg tccagctggc gggcggcgcc 26640

accctgtgtc gtcaccgccc cgctcagggt ataaagcggc tggtgatccg gggcagaggc 26700

acacagctca acgacgaggt ggtgagctct tcgctgggtc tgcgacctga cggagtcttc 26760

caactcgccg gatcggggag atcttccttc acgcctcgtc aggccgtcct gactttggag 26820

agttcgtcct cgcagccccg ctcgggtggc atcggcactc tccagttcgt ggaggagttc 26880

actccctcgg tctacttcaa ccccttctcc ggctcccccg gccactaccc ggacgagttc 26940

atcccgaact tcgacgccat cagcgagtcg gtggacggct acgattgaaa ctaatcaccc 27000

ccttatccag tgaaataaag atcatattga tgatgatttt acagaaataa aaaataatca 27060

tttgatttga aataaagata caatcatatt gatgatttga gtttaacaaa aaaataaaga 27120

atcacttact tgaaatctga taccaggtct ctgtccatgt tttctgccaa caccacttca 27180

ctcccctctt cccagctctg gtactgcagg ccccggcggg ctgcaaactt cctccacacg 27240

ctgaagggga tgtcaaattc ctcctgtccc tcaatcttca ttttatcttc tatcagatgt 27300

ccaaaaagcg cgtccgggtg gatgatgact tcgaccccgt ctacccctac gatgcagaca 27360

acgcaccgac cgtgcccttc atcaaccccc ccttcgtctc ttcagatgga ttccaagaga 27420

agcccctggg ggtgttgtcc ctgcgactgg ccgaccccgt caccaccaag aacggggaaa 27480

tcaccctcaa gctgggagag ggggtggacc tcgattcctc gggaaaactc atctccaaca 27540

cggccaccaa ggccgccgcc cctctcagtt tttccaacaa caccatttcc cttaacatgg 27600

atcacccctt ttacactaaa gatggaaaat tatccttaca agtttctcca ccattaaata 27660

tactgagaac aagcattcta aacacactag ctttaggttt tggatcaggt ttaggactcc 27720

gtggctctgc cttggcagta cagttagtct ctccacttac atttgatact gatggaaaca 27780

taaagcttac cttagacaga ggtttgcatg ttacaacagg agatgcaatt gaaagcaaca 27840

taagctgggc taaaggttta aaatttgaag atggagccat agcaaccaac attggaaatg 27900

ggttagagtt tggaagcagt agtacagaaa caggtgttga tgatgcttac ccaatccaag 27960

ttaaacttgg atctggcctt agctttgaca gtacaggagc cataatggct ggtaacaaag 28020

aagacgataa actcactttg tggacaacac ctgatccatc accaaactgt caaatactcg 28080

cagaaaatga tgcaaaacta acactttgct tgactaaatg tggtagtcaa atactggcca 28140

ctgtgtcagt cttagttgta ggaagtggaa acctaaaccc cattactggc accgtaagca 28200

gtgctcaggt gtttctacgt tttgatgcaa acggtgttct tttaacagaa cattctacac 28260

taaaaaaata ctgggggtat aggcagggag atagcataga tggcactcca tataccaatg 28320

ctgtaggatt catgcccaat ttaaaagctt atccaaagtc acaaagttct actactaaaa 28380

ataatatagt agggcaagta tacatgaatg gagatgtttc aaaacctatg cttctcacta 28440

taaccctcaa tggtactgat gacagcaaca gtacatattc aatgtcattt tcatacacct 28500

ggactaatgg aagctatgtt ggagcaacat ttggggctaa ctcttatacc ttctcataca 28560

tcgcccaaga atgaacactg tatcccaccc tgcatgccaa cccttcccac cccactctgt 28620

ggaacaaact ctgaaacaca aaataaaata aagttcaagt gttttattga ttcaacagtt 28680

ttacaggatt cgagcagtta tttttcctcc accctcccag gacatggaat acaccaccct 28740

ctccccccgc acagccttga acatctgaat gccattggtg atggacatgc ttttggtctc 28800

cacgttccac acagtttcag agcgagccag tctcgggtcg gtcagggaga tgaaaccctc 28860

cgggcactcc cgcatctgca cctcacagct caacagctga ggattgtcct cggtggtcgg 28920

gatcacggtt atctggaaga agcagaagag cggcggtggg aatcatagtc cgcgaacggg 28980

atcggccggt ggtgtcgcat caggccccgc agcagtcgct gccgccgccg ctccgtcaag 29040

ctgctgctca gggggtccgg gtccagggac tccctcagca tgatgcccac ggccctcagc 29100

atcagtcgtc tggtgcggcg ggcgcagcag cgcatgcgga tctcgctcag gtcgctgcag 29160

tacgtgcaac acagaaccac caggttgttc aacagtccat agttcaacac gctccagccg 29220

aaactcatcg cgggaaggat gctacccacg tggccgtcgt accagatcct caggtaaatc 29280

aagtggtgcc ccctccagaa cacgctgccc acgtacatga tctccttggg catgtggcgg 29340

ttcaccacct cccggtacca catcaccctc tggttgaaca tgcagccccg gatgatcctg 29400

cggaaccaca gggccagcac cgccccgccc gccatgcagc gaagagaccc cgggtcccgg 29460

caatggcaat ggaggaccca ccgctcgtac ccgtggatca tctgggagct gaacaagtct 29520

atgttggcac agcacaggca tatgctcatg catctcttca gcactctcaa ctcctcgggg 29580

gtcaaaacca tatcccaggg cacggggaac tcttgcagga cagcgaaccc cgcagaacag 29640

ggcaatcctc gcacagaact tacattgtgc atggacaggg tatcgcaatc aggcagcacc 29700

gggtgatcct ccaccagaga agcgcgggtc tcggtctcct cacagcgtgg taaggggcc 29760

ggccgatacg ggtgatggcg ggacgcggct gatcgtgttc gcgaccgtgt catgatgcag 29820

ttgctttcgg acattttcgt acttgctgta gcagaacctg gtccgggcgc tgcacaccga 29880

tcgccggcgg cggtctcggc gcttggaacg ctcggtgttg aaattgtaaa acagccactc 29940

tctcagaccg tgcagcagat ctagggcctc aggagtgatg aagatcccat catgcctgat 30000

ggctctgatc acatcgacca ccgtggaatg ggccagaccc agccagatga tgcaattttg 30060

ttgggtttcg gtgacggcgg gggagggaag aacaggaaga accatgatta acttttaatc 30120

caaacggtct cggagtactt caaaatgaag atcgcggaga tggcacctct cgcccccgct 30180

gtgttggtgg aaaataacag ccaggtcaaa ggtgatacgg ttctcgagat gttccacggt 30240

ggcttccagc aaagcctcca cgcgcacatc cagaaacaag acaatagcga aagcgggagg 30300

gttctctaat tcctcaatca tcatgttaca ctcctgcacc atccccagat aattttcatt 30360

tttccagcct tgaatgattc gaactagttc ctgaggtaaa tccaagccag ccatgataaa 30420

gagctcgcgc agagcgccct ccaccggcat tcttaagcac accctcataa ttccaagata 30480

ttctgctcct ggttcacctg cagcagattg acaagcggaa tatcaaaatc tctgccgcga 30540

tccctgagct cctccctcag caataactgt aagtactctt tcatatcctc tccgaaattt 30600

ttagccatag gaccaccagg aataagatta gggcaagcca cagtacagat aaaccgaagt 30660

cctccccagt gagcattgcc aaatgcaaga ctgctataag catgctggct agacccggtg 30720

atatcttcca gataactgga cagaaaatcg cccaggcaat ttttaagaaa atcaacaaaa 30780

gaaaaatcct ccaggtggac gtttagagcc tcgggaacaa cgatgaagta aatgcaagcg 30840

gtgcgttcca gcatggttag ttagctgatc tgtagaaaaa acaaaaatga acattaaacc 30900

atgctagcct ggcgaacagg tgggtaaatc gttctctcca gcaccaggca ggccacgggg 30960

tctccggcgc gaccctcgta aaaattgtcg ctatgattga aaaccatcac agagagacgt 31020

tcccggtggc cggcgtgaat gattcgacaa gatgaataca cccccggaac attggcgtcc 31080

gcgagtgaaa aaaagcgccc gaggaagcaa taaggcacta caatgctcag tctcaagtcc 31140

agcaaagcga tgccatgcgg atgaagcaca aaattctcag gtgcgtacaa aatgtaatta 31200

ctcccctcct gcacaggcag caaagccccc gatccctcca ggtacacata caaagcctca 31260

gcgtccatag cttaccgagc agcagcacac aacaggcgca agagtcagag aaaggctgag 31320

ctctaacctg tccacccgct ctctgctcaa tatatagccc agatctacac tgacgtaaag 31380

gccaaagtct aaaaataccc gccaaataat cacacacgcc cagcacacgc ccagaaaccg 31440

gtgacacact caaaaaaata cgcgcacttc ctcaaacgcc caaaactgcc gtcatttccg 31500

ggttcccacg ctacgtcatc aaaacacgac tttcaaattc cgtcgaccgt taaaaacgtc 31560

acccgccccg cccctaacgg tcgcccgtct ctcagccaat cagcgccccg catccccaaa 31620

ttcaaacacc tcatttgcat attaacgcgc acaaaaagtt tgaggtatat tattgatgat 31680

g 31681

<210> 69
<211> 30954
<212> DNA
<213> Artificial Sequence

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

<400> 69
catcatcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatgacattg 600

attattgact agttgttaat agtaatcaat tacggggtca ttagttcata gcccatatat 660

ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc 720

ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca 780

ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta 840

tcatatgcca agtccgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta 900

tgcccagtac atgaccttac gggactttcc tacttggcag tacatctacg tattagtcat 960

cgctattacc atggtgatgc ggttttggca gtacaccaat gggcgtggat agcggtttga 1020

ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca 1080

aaatcaacgg gactttccaa aatgtcgtaa taaccccgcc ccgttgacgc aaatgggcgg 1140

taggcgtgta cggtgggagg tctatataag cagagctctc cctatcagtg atagagatct 1200

ccctatcagt gatagagatc gtcgacgagc tcgtttagtg aaccgtcaga tcgcctggaa 1260

cgccatccac gctgttttga cctccataga agacagcgat cgcgccacca tggctggcat 1320

gaccgagtac aagctagtcg ttgtgggagc tggagatgtg ggcaaatctg ctctgaccat 1380

tcagctgatt cagggcacag atctggatca ccaggagaag tgtctgagca ggctgtacga 1440

ccacatgcca gaaggattaa ccctcttat gggagtgagc tcttcttctg ctctggccag 1500

actgggactg cctatggata agctgaacaa gatcacagct cctgcctctc agaaactgag 1560

acagctgcag aagatggaga cccctgaact gctgccttgt ggatatctgg tggaggagaa 1620

taccacaatc agcgtgaccg tgaaaggcct ggaagcccag aacaagatca aaggctgtac 1680

cggctctgtg aatatgacac tgcagagagc ttctgccgcc cctaagacag gaggaggagg 1740

agaagctgct gcctacaata atacattagt ggccagacat gtgccccaga tccctaagcc 1800

tgacagcctg gttggcctga gcgatgaatt aggaaaaaga gacacatttg ccgagagcct 1860

gatccggaga atggcctctg ccggctacct gttcctggat atcatcacat atgttgtgtt 1920

tgccgtgacc ttcgtgctgg gagttctggg cggcctgaat accgagacca atgaaaaagc 1980

tcttgaagcc gtgtttggca agtacggcag aatcgtggag gtgctgggcg gcagatcttg 2040

tgaagaatta acagctgtgt taccacctcc tcagctgctt ggcagacggt tcaacttctt 2100

cagctacagc tacgttgctg ctggctcttc tggcaacaac tacgacctga tggcccagcc 2160

tattacacct ggacctgata caacacctct gcctgtgacc gatacatctt ctgtgtctac 2220

cggacacgcc acatctctgc cagtgacaga tgctggactg agagtgacag agtctaaagg 2280

acacagcgat tcttggcacc tgagcctgga tacagccatc agggtgaata cccctaagct 2340

ggtttctgaa gtggaagagc tgaacaagag catcaccgcc ctgagggaga agttactgca 2400

gatggtggaa gccgatagac ctggaaacct gtttattgga ggcctgaaca ccgagaccaa 2460

tgaggactct cccgtgaagg atgaagtggt ggtgaacgat caatggggcc agaattgtag 2520

ctgccatcat ggaggctacg agttccctga tctgcacagg acaatcgtgt ctgagtgcga 2580

tgtgtatctg acctacatgc tgagacaggc tgctctgcag ctgttcttcg acctgtatca 2640

cagcatccct agcagctttt ctcctctggt tctgagctgt ctggtgcagc ctctggaaga 2700

tgtggaagtg atggagaagg atggcacaac ctttagctgt gaggtgagcc acgatgaggt 2760

gcctcggaca tatggacccg tgtttatgtg tctgggagga ctgctgacca tggtggctgg 2820

agctgtttgg ctgacagttg gacccggacc aggcgccaaa tttgttgctg cttggacact 2880

gaaagctgct gctgggcccg gaccaggcca gtacatcaag gccaactcta agtttatcgg 2940

catcaccgaa ttgggacctg gacccggcta gtagtgagtt taaactccca tttaaatgtg 3000

agggttaatg cttcgagcag acatgataag atacattgat gagtttggac aaaccacaac 3060

tagaatgcag tgaaaaaaat gctttatttg tgaaatttgt gatgctattg ctttatttgt 3120

aaccattata agctgcaata aacaagttaa caacaacaat tgcattcatt ttatgtttca 3180

ggttcagggg gagatgtggg aggtttttta aagcaagtaa aacctctaca aatgtggtaa 3240

aataactata acggtcctaa ggtagcgagt gagtagtgtt ctggggcggg ggaggacctg 3300

catgagggcc agaataactg aaatctgtgc ttttctgtgt gttgcagcag catgagcgga 3360

agcggctcct ttgagggagg ggtattcagc ccttatctga cggggcgtct cccctcctgg 3420

gcgggagtgc gtcagaatgt gatgggatcc acggtggacg gccggcccgt gcagcccgcg 3480

aactcttcaa ccctgaccta tgcaaccctg agctcttcgt cgttggacgc agctgccgcc 3540

gcagctgctg catctgccgc cagcgccgtg cgcggaatgg ccatgggcgc cggctactac 3600

ggcactctgg tggccaactc gagttccacc aataatcccg ccagcctgaa cgaggagaag 3660

ctgttgctgc tgatggccca gctcgaggcc ttgacccagc gcctgggcga gctgacccag 3720

caggtggctc agctgcagga gcagacgcgg gccgcggttg ccacggtgaa atccaaataa 3780

aaaatgaatc aataaataaa cggagacggt tgttgatttt aacacagagt ctgaatcttt 3840

atttgatttt tcgcgcgcgg taggccctgg accaccggtc tcgatcattg agcacccggt 3900

ggatcttttc caggacccgg tagaggtggg cttggatgtt gaggtacatg ggcatgagcc 3960

cgtcccgggg gtggaggtag ctccattgca gggcctcgtg ctcgggggtg gtgttgtaaa 4020

tcacccagtc atagcagggg cgcagggcat ggtgttgcac aatatctttg aggaggagac 4080

tgatggccac gggcagccct ttggtgtagg tgtttacaaa tctgttgagc tgggagggat 4140

gcatgcgggg ggagatgagg tgcatcttgg cctggatctt gagattggcg atgttaccgc 4200

ccagatcccg cctggggttc atgttgtgca ggaccaccag cacggtgtat ccggtgcact 4260

tggggaattt atcatgcaac ttggaaggga aggcgtgaaa gaatttggcg acgcctttgt 4320

gcccgcccag gttttccatg cactcatcca tgatgatggc gatgggcccg tgggcggcgg 4380

cctgggcaaa gacgtttcgg gggtcggaca catcatagtt gtggtcctgg gtgaggtcat 4440

cataggccat tttaatgaat ttggggcgga gggtgccgga ctgggggaca aaggttccct 4500

cgatcccggg ggcgtagttc ccctcacaga tctgcatctc ccaggctttg agctcggagg 4560

gggggatcat gtccacctgc ggggcgataa agaacacggt ttccggggcg ggggagatga 4620

gctgggccga aagcaagttc cggagcagct gggacttgcc gcagccggtg gggccgtaga 4680

tgaccccgat gaccggctgc aggtggtagt tgagggagag acagctgccg tcctcccgga 4740

ggaggggggc cacctcgttc atcatctcgc gcacgtgcat gttctcgcgc accagttccg 4800

ccaggaggcg ctctcccccc agggatagga gctcctggag cgaggcgaag tttttcagcg 4860

gcttgagtcc gtcggccatg ggcattttgg agagggtttg ttgcaagagt tccaggcggt 4920

cccagagctc ggtgatgtgc tctacggcat ctcgatccag cagacctcct cgtttcgcgg 4980

gttgggacgg ctgcgggagt agggcaccag acgatgggcg tccagcgcag ccagggtccg 5040

gtccttccag ggtcgcagcg tccgcgtcag ggtggtctcc gtcacggtga aggggtgcgc 5100

gccgggctgg gcgcttgcga gggtgcgctt caggctcatc cggctggtcg aaaaccgctc 5160

ccgatcggcg ccctgcgcgt cggccaggta gcaattgacc atgagttcgt agttgagcgc 5220

ctcggccgcg tggcctttgg cgcggagctt acctttggaa gtctgcccgc aggcgggaca 5280

gaggagggac ttgagggcgt agagcttggg ggcgaggaag acggactcgg gggcgtaggc 5340

gtccgcgccg cagtgggcgc agacggtctc gcactccacg agccaggtga ggtcgggctg 5400

gtcggggtca aaaaccagtt tcccgccgtt ctttttgatg cgtttcttac ctttggtctc 5460

catgagctcg tgtccccgct gggtgacaaa gaggctgtcc gtgtccccgt agaccgactt 5520

tatgggccgg tcctcgagcg gtgtgccgcg gtcctcctcg tagaggaacc ccgcccactc 5580

cgagacgaaa gcccgggtcc aggccagcac gaaggaggcc acgtgggacg ggtagcggtc 5640

gttgtccacc agcgggtcca ccttttccag ggtatgcaaa cacatgtccc cctcgtccac 5700

atccaggaag gtgattggct tgtaagtgta ggccacgtga ccgggggtcc cggccggggg 5760

ggtataaaag ggtgcgggtc cctgctcgtc ctcactgtct tccggatcgc tgtccaggag 5820

cgccagctgt tggggtaggt attccctctc gaaggcgggc atgacctcgg cactcaggtt 5880

gtcagtttct agaaacgagg aggatttgat attgacggtg ccggcggaga tgcctttcaa 5940

gagcccctcg tccatctggt cagaaaagac gatctttttg ttgtcgagct tggtggcgaa 6000

ggagccgtag agggcgttgg agaggagctt ggcgatggag cgcatggtct ggttttttc 6060

cttgtcggcg cgctccttgg cggcgatgtt gagctgcacg tactcgcgcg ccacgcactt 6120

ccattcgggg aagacggtgg tcagctcgtc gggcacgatt ctgacctgcc agccccgatt 6180

atgcagggtg atgaggtcca cactggtggc cacctcgccg cgcaggggct cattagtcca 6240

gcagaggcgt ccgcccttgc gcgagcagaa gggggggcagg gggtccagca tgacctcgtc 6300

gggggggtcg gcatcgatgg tgaagatgcc gggcaggagg tcggggtcaa agtagctgat 6360

ggaagtggcc agatcgtcca gggcagcttg ccattcgcgc acggccagcg cgcgctcgta 6420

gggactgagg ggcgtgcccc agggcatggg atgggtaagc gcggaggcgt acatgccgca 6480

gatgtcgtag acgtagaggg gctcctcgag gatgccgatg taggtggggt agcagcgccc 6540

cccgcggatg ctggcgcgca cgtagtcata cagctcgtgc gaggggggcga ggagccccgg 6600

gcccaggttg gtgcgactgg gcttttcggc gcggtagacg atctggcgga aaatggcatg 6660

cgagttggag gagatggtgg gcctttggaa gatgttgaag tgggcgtggg gcagtccgac 6720

cgagtcgcgg atgaagtggg cgtaggagtc ttgcagcttg gcgacgagct cggcggtgac 6780

taggacgtcc agagcgcagt agtcgagggt ctcctggatg atgtcatact tgagctgtcc 6840

cttttgtttc cacagctcgc ggttgagaag gaactcttcg cggtccttcc agtactcttc 6900

gagggggaac ccgtcctgat ctgcacggta agagcctagc atgtagaact ggttgacggc 6960

cttgtaggcg cagcagccct tctccacggg gagggcgtag gcctgggcgg ccttgcgcag 7020

ggaggtgtgc gtgagggcga aagtgtccct gaccatgacc ttgaggaact ggtgcttgaa 7080

gtcgatatcg tcgcagcccc cctgctccca gagctggaag tccgtgcgct tcttgtaggc 7140

ggggttgggc aaagcgaaag taacatcgtt gaagaggatc ttgcccgcgc ggggcataaa 7200

gttgcgagtg atgcggaaag gttggggcac ctcggcccgg ttgttgatga cctgggcggc 7260

gagcacgatc tcgtcgaagc cgttgatgtt gtggcccacg atgtagagtt ccacgaatcg 7320

cggacggccc ttgacgtggg gcagtttctt gagctcctcg taggtgagct cgtcggggtc 7380

gctgagcccg tgctgctcga gcgcccagtc ggcgagatgg gggttggcgc ggaggaagga 7440

agtccagaga tccacggcca gggcggtttg cagacggtcc cggtactgac ggaactgctg 7500

cccgacggcc atttttttcgg gggtgacgca gtagaaggtg cgggggtccc cgtgccagcg 7560

atcccatttg agctggaggg cgagatcgag ggcgagctcg acgagccggt cgtccccgga 7620

gagtttcatg accagcatga aggggacgag ctgcttgccg aaggacccca tccaggtgta 7680

ggtttccaca tcgtaggtga ggaagagcct ttcggtgcga ggatgcgagc cgatggggaa 7740

gaactggatc tcctgccacc aattggagga atggctgttg atgtgatgga agtagaaatg 7800

ccgacggcgc gccgaacact cgtgcttgtg tttatacaag cggccacagt gctcgcaacg 7860

ctgcacggga tgcacgtgct gcacgagctg tacctgagtt cctttgacga ggaatttcag 7920

tgggaagtgg agtcgtggcg cctgcatctc gtgctgtact acgtcgtggt ggtcggcctg 7980

gccctcttct gcctcgatgg tggtcatgct gacgagcccg cgcgggaggc aggtccagac 8040

ctcggcgcga gcgggtcgga gagcgaggac gagggcgcgc aggccggagc tgtccagggt 8100

cctgagacgc tgcggagtca ggtcagtggg cagcggcggc gcgcggttga cttgcaggag 8160

tttttccagg gcgcgcggga ggtccagatg gtacttgatc tccaccgcgc cattggtggc 8220

gacgtcgatg gcttgcaggg tcccgtgccc ctggggtgtg accaccgtcc cccgtttctt 8280

cttgggcggc tggggcgacg ggggcggtgc ctcttccatg gttagaagcg gcggcgagga 8340

cgcgcgccgg gcggcagggg cggctcgggg cccggaggca ggggcggcag gggcacgtcg 8400

gcgccgcgcg cgggtaggtt ctggtactgc gcccggagaa gactggcgtg agcgacgacg 8460

cgacggttga cgtcctggat ctgacgcctc tgggtgaagg ccacgggacc cgtgagtttg 8520

aacctgaaag agagttcgac agaatcaatc tcggtatcgt tgacggcggc ctgccgcagg 8580

atctcttgca cgtcgcccga gttgtcctgg taggcgatct cggtcatgaa ctgctcgatc 8640

tcctcctctt gaaggtctcc gcggccggcg cgctccacgg tggccgcgag gtcgttggag 8700

atgcggccca tgagctgcga gaaggcgttc atgcccgcct cgttccagac gcggctgtag 8760

accacgacgc cctcgggatc gcgggcgcgc atgaccacct gggcgaggtt gagctccacg 8820

tggcgcgtga agaccgcgta gttgcagagg cgctggtaga ggtagttgag cgtggtggcg 8880

atgtgctcgg tgacgaagaa atacatgatc cagcggcgga gcggcatctc gctgacgtcg 8940

cccagcgcct ccaaacgttc catggcctcg taaaagtcca cggcgaagtt gaaaaactgg 9000

gagttgcgcg ccgagacggt caactcctcc tccagaagac ggatgagctc ggcgatggtg 9060

gcgcgcacct cgcgctcgaa ggcccccggg agttcctcca cttcctcttc ttcctcctcc 9120

actaacatct cttctacttc ctcctcaggc ggcagtggtg gcgggggagg gggcctgcgt 9180

cgccggcggc gcacgggcag acggtcgatg aagcgctcga tggtctcgcc gcgccggcgt 9240

cgcatggtct cggtgacggc gcgcccgtcc tcgcggggcc gcagcgtgaa gacgccgccg 9300

cgcatctcca ggtggccggg ggggtccccg ttgggcaggg agagggcgct gacgatgcat 9360

cttatcaatt gccccgtagg gactccgcgc aaggacctga gcgtctcgag atccacggga 9420

tctgaaaacc gctgaacgaa ggcttcgagc cagtcgcagt cgcaaggtag gctgagcacg 9480

gtttcttctg gcgggtcatg ttggttggga gcggggcggg cgatgctgct ggtgatgaag 9540

ttgaaatagg cggttctgag acggcggatg gtggcgagga gcaccaggtc tttgggcccg 9600

gcttgctgga tgcgcagacg gtcggccatg ccccaggcgt ggtcctgaca cctggccagg 9660

tccttgtagt agtcctgcat gagccgctcc acgggcacct cctcctcgcc cgcgcggccg 9720

tgcatgcgcg tgagcccgaa gccgcgctgg ggctggacga gcgccaggtc ggcgacgacg 9780

cgctcggcga ggatggcttg ctggatctgg gtgagggtgg tctggaagtc atcaaagtcg 9840

acgaagcggt ggtaggctcc ggtgttgatg gtgtaggagc agttggccat gacggaccag 9900

ttgacggtct ggtggcccgg acgcacgagc tcgtggtact tgaggcgcga gtaggcgcgc 9960

gtgtcgaaga tgtagtcgtt gcaggtgcgc accaggtact ggtagccgat gaggaagtgc 10020

ggcggcggct ggcggtagag cggccatcgc tcggtggcgg gggcgccggg cgcgaggtcc 10080

tcgagcatgg tgcggtggta gccgtagatg tacctggaca tccaggtgat gccggcggcg 10140

gtggtggagg cgcgcgggaa ctcgcggacg cggttccaga tgttgcgcag cggcaggaag 10200

tagttcatgg tgggcacggt ctggcccgtg aggcgcgcgc agtcgtggat gctctatacg 10260

ggcaaaaacg aaagcggtca gcggctcgac tccgtggcct ggaggctaag cgaacgggtt 10320

gggctgcgcg tgtaccccgg ttcgaatctc gaatcaggct ggagccgcag ctaacgtggt 10380

attggcactc ccgtctcgac ccaagcctgc accaaccctc caggatacgg aggcgggtcg 10440

ttttgcaact ttttttgga ggccggatga gactagtaag cgcggaaagc ggccgaccgc 10500

gatggctcgc tgccgtagtc tggagaagaa tcgccagggt tgcgttgcgg tgtgccccgg 10560

ttcgaggccg gccggattcc gcggctaacg agggcgtggc tgccccgtcg tttccaagac 10620

cccatagcca gccgacttct ccagttacgg agcgagcccc tcttttgttt tgtttgtttt 10680

tgccagatgc atcccgtact gcggcagatg cgcccccacc accctccacc gcaacaacag 10740

ccccctccac agccggcgct tctgcccccg ccccagcagc aacttccagc cacgaccgcc 10800

gcggccgccg tgagcggggc tggacagagt tatgatcacc agctggcctt ggaagagggc 10860

gaggggctgg cgcgcctggg ggcgtcgtcg ccggagcggc acccgcgcgt gcagatgaaa 10920

agggacgctc gcgaggccta cgtgcccaag cagaacctgt tcagagacag gagcggcgag 10980

gagcccgagg agatgcgcgc ggcccggttc cacgcggggc gggagctgcg gcgcggcctg 11040

gaccgaaaga gggtgctgag ggacgaggat ttcgaggcgg acgagctgac ggggatcagc 11100

cccgcgcgcg cgcacgtggc cgcggccaac ctggtcacgg cgtacgagca gaccgtgaag 11160

gaggagagca acttccaaaa atccttcaac aaccacgtgc gcaccctgat cgcgcgcgag 11220

gaggtgaccc tgggcctgat gcacctgtgg gacctgctgg aggccatcgt gcagaacccc 11280

accagcaagc cgctgacggc gcagctgttc ctggtggtgc agcatagtcg ggacaacgaa 11340

gcgttcaggg aggcgctgct gaatatcacc gagcccgagg gccgctggct cctggacctg 11400

gtgaacattc tgcagagcat cgtggtgcag gagcgcgggc tgccgctgtc cgagaagctg 11460

gcggccatca acttctcggt gctgagtttg ggcaagtact acgctaggaa gatctacaag 11520

accccgtacg tgcccataga caaggaggtg aagatcgacg ggttttacat gcgcatgacc 11580

ctgaaagtgc tgaccctgag cgacgatctg ggggtgtacc gcaacgacag gatgcaccgt 11640

gcggtgagcg ccagcaggcg gcgcgagctg agcgaccagg agctgatgca tagtctgcag 11700

cgggccctga ccggggccgg gaccgagggg gagagctact ttgacatggg cgcggacctg 11760

cactggcagc ccagccgccg ggccttggag gcggcggcag gaccctacgt agaagaggtg 11820

gacgatgagg tggacgagga gggcgagtac ctggaagact gatggcgcga ccgtattttt 11880

gctagatgca acaacaacag ccacctcctg atcccgcgat gcgggcggcg ctgcagagcc 11940

agccgtccgg cattaactcc tcggacgatt ggacccaggc catgcaacgc atcatggcgc 12000

tgacgacccg caaccccgaa gcctttagac agcagcccca ggccaaccgg ctctcggcca 12060

tcctggaggc cgtggtgccc tcgcgctcca accccacgca cgagaaggtc ctggccatcg 12120

tgaacgcgct ggtggagaac aaggccatcc gcggcgacga ggccggcctg gtgtacaacg 12180

cgctgctgga gcgcgtggcc cgctacaaca gcaccaacgt gcagaccaac ctggaccgca 12240

tggtgaccga cgtgcgcgag gccgtggccc agcgcgagcg gttccaccgc gagtccaacc 12300

tgggatccat ggtggcgctg aacgccttcc tcagcaccca gcccgccaac gtgccccggg 12360

gccaggagga ctacaccaac ttcatcagcg ccctgcgcct gatggtgacc gaggtgcccc 12420

agagcgaggt gtaccagtcc gggccggact acttcttcca gaccagtcgc cagggcttgc 12480

agaccgtgaa cctgagccag gctttcaaga acttgcaggg cctgtggggc gtgcaggccc 12540

cggtcgggga ccgcgcgacg gtgtcgagcc tgctgacgcc gaactcgcgc ctgctgctgc 12600

tgctggtggc ccccttcacg gacagcggca gcatcaaccg caactcgtac ctgggctacc 12660

tgattaacct gtaccgcgag gccatcggcc aggcgcacgt ggacgagcag acctaccagg 12720

agatcaccca cgtgagccgc gccctgggcc aggacgaccc gggcaacctg gaagccaccc 12780

tgaacttttt gctgaccaac cggtcgcaga agatcccgcc ccagtacgcg ctcagcaccg 12840

aggaggagcg catcctgcgt tacgtgcagc agagcgtggg cctgttcctg atgcaggagg 12900

gggccacccc cagcgccgcg ctcgacatga ccgcgcgcaa catggagccc agcatgtacg 12960

ccagcaaccg cccgttcatc aataaactga tggactactt gcatcgggcg gccgccatga 13020

actctgacta tttcaccaac gccatcctga atccccactg gctcccgccg ccggggttct 13080

acacgggcga gtacgacatg cccgacccca atgacgggtt cctgtgggac gatgtggaca 13140

gcagcgtgtt ctccccccga ccgggtgcta acgagcgccc cttgtggaag aaggaaggca 13200

gcgaccgacg cccgtcctcg gcgctgtccg gccgcgaggg tgctgccgcg gcggtgcccg 13260

aggccgccag tcctttcccg agcttgccct tctcgctgaa cagtatccgc agcagcgagc 13320

tgggcaggat cacgcgcccg cgcttgctgg gcgaagagga gtacttgaat gactcgctgt 13380

tgagacccga gcgggagaag aacttcccca ataacgggat agaaagcctg gtggacaaga 13440

tgagccgctg gaagacgtat gcgcaggagc acagggacga tccccgggcg tcgcaggggg 13500

ccacgagccg gggcagcgcc gcccgtaaac gccggtggca cgacaggcag cggggacaga 13560

tgtgggacga tgaggactcc gccgacgaca gcagcgtgtt ggacttgggt gggagtggta 13620

acccgttcgc tcacctgcgc ccccgtatcg ggcgcatgat gtaagagaaa ccgaaaataa 13680

atgatactca ccaaggccat ggcgaccagc gtgcgttcgt ttcttctctg ttgttgttgt 13740

atctagtatg atgaggcgtg cgtacccgga gggtcctcct ccctcgtacg agagcgtgat 13800

gcagcaggcg atggcggcgg cggcgatgca gccccccgctg gaggctcctt acgtgccccc 13860

gcggtacctg gcgcctacgg aggggcggaa cagcattcgt tactcggagc tggcaccctt 13920

gtacgatacc acccggttgt acctggtgga caacaagtcg gcggacatcg cctcgctgaa 13980

ctaccagaac gaccacagca acttcctgac caccgtggtg cagaacaatg acttcacccc 14040

cacggaggcc agcacccaga ccatcaactt tgacgagcgc tcgcggtggg gcggccagct 14100

gaaaaccatc atgcacacca acatgcccaa cgtgaacgag ttcatgtaca gcaacaagtt 14160

caaggcgcgg gtgatggtct cccgcaagac ccccaatggg gtgacagtga cagaggatta 14220

tgatggtagt caggatgagc tgaagtatga atgggtggaa tttgagctgc ccgaaggcaa 14280

cttctcggtg accatgacca tcgacctgat gaacaacgcc atcatcgaca attacttggc 14340

ggtggggcgg cagaacgggg tgctggagag cgacatcggc gtgaagttcg acactaggaa 14400

cttcaggctg ggctgggacc ccgtgaccga gctggtcatg cccggggtgt acaccaacga 14460

ggctttccat cccgatattg tcttgctgcc cggctgcggg gtggacttca ccgagagccg 14520

cctcagcaac ctgctgggca ttcgcaagag gcagcccttc caggaaggct tccagatcat 14580

gtacgaggat ctggaggggg gcaacatccc cgcgctcctg gatgtcgacg cctatgagaa 14640

aagcaaggag gatgcagcag ctgaagcaac tgcagccgta gctaccgcct ctaccgaggt 14700

caggggcgat aattttgcaa gcgccgcagc agtggcagcg gccgaggcgg ctgaaaccga 14760

aagtaagata gtcattcagc cggtggagaa ggatagcaag aacaggagct acaacgtact 14820

accggacaag ataaacaccg cctaccgcag ctggtaccta gcctacaact atggcgaccc 14880

cgagaagggc gtgcgctcct ggacgctgct caccacctcg gacgtcacct gcggcgtgga 14940

gcaagtctac tggtcgctgc ccgacatgat gcaagacccg gtcaccttcc gctccacgcg 15000

tcaagttagc aactacccgg tggtgggcgc cgagctcctg cccgtctact ccaagagctt 15060

cttcaacgag caggccgtct actcgcagca gctgcgcgcc ttcacctcgc ttacgcacgt 15120

cttcaaccgc ttccccgaga accagatcct cgtccgcccg cccgcgccca ccattaccac 15180

cgtcagtgaa aacgttcctg ctctcacaga tcacgggacc ctgccgctgc gcagcagtat 15240

ccggggagtc cagcgcgtga ccgttactga cgccagacgc cgcacctgcc cctacgtcta 15300

caaggccctg ggcatagtcg cgccgcgcgt cctctcgagc cgcaccttct aaatgtccat 15360

tctcatctcg cccagtaata acaccggttg gggcctgcgc gcgcccagca agatgtacgg 15420

aggcgctcgc caacgctcca cgcaacaccc cgtgcgcgtg cgcgggcact tccgcgctcc 15480

ctggggcgcc ctcaagggcc gcgtgcggtc gcgcaccacc gtcgacgacg tgatcgacca 15540

ggtggtggcc gacgcgcgca actacacccc cgccgccgcg cccgtctcca ccgtggacgc 15600

cgtcatcgac agcgtggtgg ccgacgcgcg ccggtacgcc cgcgccaaga gccggcggcg 15660

gcgcatcgcc cggcggcacc ggagcacccc cgccatgcgc gcggcgcgag ccttgctgcg 15720

cagggccagg cgcacgggac gcagggccat gctcagggcg gccagacgcg cggcttcagg 15780

cgccagcgcc ggcaggaccc ggagacgcgc ggccacggcg gcggcagcgg ccatcgccag 15840

catgtcccgc ccgcggcgag ggaacgtgta ctgggtgcgc gacgccgcca ccggtgtgcg 15900

cgtgcccgtg cgcacccgcc cccctcgcac ttgaagatgt tcacttcgcg atgttgatgt 15960

gtcccagcgg cgaggaggat gtccaagcgc aaattcaagg aagagatgct ccaggtcatc 16020

gcgcctgaga tctacggccc tgcggtggtg aaggaggaaa gaaagccccg caaaatcaag 16080

cgggtcaaaa aggacaaaaa ggaagaagaa agtgatgtgg acggattggt ggagtttgtg 16140

cgcgagttcg ccccccggcg gcgcgtgcag tggcgcgggc ggaaggtgca accggtgctg 16200

agacccggca ccaccgtggt cttcacgccc ggcgagcgct ccggcaccgc ttccaagcgc 16260

tcctacgacg aggtgtacgg ggatgatgat attctggagc aggcggccga gcgcctgggc 16320

gagtttgctt acggcaagcg cagccgttcc gcaccgaagg aagaggcggt gtccatcccg 16380

ctggaccacg gcaaccccac gccgagcctc aagcccgtga ccttgcagca ggtgctgccg 16440

accgcggcgc cgcgccgggg gttcaagcgc gagggcgagg atctgtaccc caccatgcag 16500

ctgatggtgc ccaagcgcca gaagctggaa gacgtgctgg agaccatgaa ggtggacccg 16560

gacgtgcagc ccgaggtcaa ggtgcggccc atcaagcagg tggccccggg cctgggcgtg 16620

cagaccgtgg acatcaagat tcccacggag cccatggaaa cgcagaccga gcccatgatc 16680

aagcccagca ccagcaccat ggaggtgcag acggatccct ggatgccatc ggctcctagt 16740

cgaagacccc ggcgcaagta cggcgcggcc agcctgctga tgcccaacta cgcgctgcat 16800

ccttccatca tccccacgcc gggctaccgc ggcacgcgct tctaccgcgg tcataccagc 16860

agccgccgcc gcaagaccac cactcgccgc cgccgtcgcc gcaccgccgc tgcaaccacc 16920

cctgccgccc tggtgcggag agtgtaccgc cgcggccgcg cacctctgac cctgccgcgc 16980

gcgcgctacc acccgagcat cgccatttaa actttcgcct gctttgcaga tcaatggccc 17040

tcacatgccg ccttcgcgtt cccattacgg gctaccgagg aagaaaaccg cgccgtagaa 17100

ggctggcggg gaacgggatg cgtcgccacc accaccggcg gcggcgcgcc atcagcaagc 17160

ggttgggggg aggcttcctg cccgcgctga tccccatcat cgccgcggcg atcggggcga 17220

tccccggcat tgcttccgtg gcggtgcagg cctctcagcg ccactgagac acacttggaa 17280

acatcttgta ataaaccaat ggactctgac gctcctggtc ctgtgatgtg ttttcgtaga 17340

cagatggaag acatcaattt ttcgtccctg gctccgcgac acggcacgcg gccgttcatg 17400

ggcacctgga gcgacatcgg caccagccaa ctgaacgggg gcgccttcaa ttggagcagt 17460

ctctggagcg ggcttaagaa tttcgggtcc acgcttaaaa cctatggcag caaggcgtgg 17520

aacagcacca cagggcaggc gctgagggat aagctgaaag agcagaactt ccagcagaag 17580

gtggtcgatg ggctcgcctc gggcatcaac ggggtggtgg acctggccaa ccaggccgtg 17640

cagcggcaga tcaacagccg cctggacccg gtgccgcccg ccggctccgt ggagatgccg 17700

caggtggagg aggagctgcc tcccctggac aagcggggcg agaagcgacc ccgccccgat 17760

gcggaggaga cgctgctgac gcacacggac gagccgcccc cgtacgagga ggcggtgaaa 17820

ctgggtctgc ccaccacgcg gcccatcgcg cccctggcca ccggggtgct gaaacccgaa 17880

aagcccgcga ccctggactt gcctcctccc cagccttccc gcccctctac agtggctaag 17940

cccctgccgc cggtggccgt ggcccgcgcg cgacccgggg gcaccgcccg ccctcatgcg 18000

aactggcaga gcactctgaa cagcatcgtg ggtctgggag tgcagagtgt gaagcgccgc 18060

cgctgctatt aaacctaccg tagcgcttaa cttgcttgtc tgtgtgtgta tgtattatgt 18120

cgccgccgcc gctgtccacc agaaggagga gtgaagaggc gcgtcgccga gttgcaagat 18180

ggccacccca tcgatgctgc cccagtgggc gtacatgcac atcgccggac aggacgcttc 18240

ggagtacctg agtccgggtc tggtgcagtt tgcccgcgcc acagacacct acttcagtct 18300

ggggaacaag tttaggaacc ccacggtggc gcccacgcac gatgtgacca ccgaccgcag 18360

ccagcggctg acgctgcgct tcgtgcccgt ggaccgcgag gacaacacct actcgtacaa 18420

agtgcgctac acgctggccg tgggcgacaa ccgcgtgctg gacatggcca gcacctactt 18480

tgacatccgc ggcgtgctgg atcggggccc tagcttcaaa ccctactccg gcaccgccta 18540

caacagtctg gcccccaagg gagcacccaa cacttgtcag tggacatata aagccgatgg 18600

tgaaactgcc acagaaaaaa cctatacata tggaaatgca cccgtgcagg gcattaacat 18660

cacaaaagat ggtattcaac ttggaactga caccgatgat cagccaatct acgcagataa 18720

aacctatcag cctgaacctc aagtgggtga tgctgaatgg catgacatca ctggtactga 18780

tgaaaagtat ggaggcagag ctcttaagcc tgataccaaa atgaagcctt gttatggttc 18840

ttttgccaag cctactaata aagaaggagg tcaggcaaat gtgaaaacag gaacaggcac 18900

tactaaagaa tatgacatag acatggcttt ctttgacaac agaagtgcgg ctgctgctgg 18960

cctagctcca gaaattgttt tgtatactga aaatgtggat ttggaaactc cagataccca 19020

tattgtatac aaagcaggca cagatgacag cagctcttct attaatttgg gtcagcaagc 19080

catgcccaac agacctaact acattggttt cagagacaac tttatcgggc tcatgtacta 19140

caacagcact ggcaatatgg gggtgctggc cggtcaggct tctcagctga atgctgtggt 19200

tgacttgcaa gacagaaaca ccgagctgtc ctaccagctc ttgcttgact ctctgggtga 19260

cagaacccgg tatttcagta tgtggaatca ggcggtggac agctatgatc ctgatgtgcg 19320

cattattgaa aatcatggtg tggaggatga acttcccaac tattgtttcc ctctggatgc 19380

tgttggcaga acagatactt atcagggaat taaggctaat ggaactgatc aaaccacatg 19440

gaccaaagat gacagtgtca atgatgctaa tgagataggc aagggtaatc cattcgccat 19500

ggaaatcaac atccaagcca acctgtggag gaacttcctc tacgccaacg tggccctgta 19560

cctgcccgac tcttacaagt acacgccggc caatgttacc ctgcccacca acaccaacac 19620

ctacgattac atgaacggcc gggtggtggc gccctcgctg gtggactcct acatcaacat 19680

cggggcgcgc tggtcgctgg atcccatgga caacgtgaac cccttcaacc accaccgcaa 19740

tgcggggctg cgctaccgct ccatgctcct gggcaacggg cgctacgtgc ccttccacat 19800

ccaggtgccc cagaaatttt tcgccatcaa gagcctcctg ctcctgcccg ggtcctacac 19860

ctacgagtgg aacttccgca aggacgtcaa catgatcctg cagagctccc tcggcaacga 19920

cctgcgcacg gacggggcct ccatctcctt caccagcatc aacctctacg ccaccttctt 19980

ccccatggcg cacaacacgg cctccacgct cgaggccatg ctgcgcaacg acaccaacga 20040

ccagtccttc aacgactacc tctcggcggc caacatgctc taccccatcc cggccaacgc 20100

caccaacgtg cccatctcca tcccctcgcg caactgggcc gccttccgcg gctggtcctt 20160

cacgcgtctc aagaccaagg agacgccctc gctgggctcc gggttcgacc cctacttcgt 20220

ctactcgggc tccatccccct acctcgacgg caccttctac ctcaaccaca ccttcaagaa 20280

ggtctccatc accttcgact cctccgtcag ctggcccggc aacgaccggc tcctgacgcc 20340

caacgagttc gaaatcaagc gcaccgtcga cggcgagggc tacaacgtgg cccagtgcaa 20400

catgaccaag gactggttcc tggtccagat gctggcccac tacaacatcg gctaccaggg 20460

cttctacgtg cccgagggct acaaggaccg catgtactcc ttcttccgca acttccagcc 20520

catgagccgc caggtggtgg acgaggtcaa ctacaaggac taccaggccg tcaccctggc 20580

ctaccagcac aacaactcgg gcttcgtcgg ctacctcgcg cccaccatgc gccagggcca 20640

gccctacccc gccaactacc cctacccgct catcggcaag agcgccgtca ccagcgtcac 20700

ccagaaaaag ttcctctgcg acagggtcat gtggcgcatc cccttctcca gcaacttcat 20760

gtccatgggc gcgctcaccg acctcggcca gaacatgctc tatgccaact ccgcccacgc 20820

gctagacatg aatttcgaag tcgaccccat ggatgagtcc acccttctct atgttgtctt 20880

cgaagtcttc gacgtcgtcc gagtgcacca gccccaccgc ggcgtcatcg aggccgtcta 20940

cctgcgcacc cccttctcgg ccggtaacgc caccacctaa gctcttgctt cttgcaagcc 21000

atggccgcgg gctccggcga gcaggagctc agggccatca tccgcgacct gggctgcggg 21060

ccctacttcc tgggcacctt cgataagcgc ttcccgggat tcatggcccc gcacaagctg 21120

gcctgcgcca tcgtcaacac ggccggccgc gagaccgggg gcgagcactg gctggccttc 21180

gcctggaacc cgcgctcgaa cacctgctac ctcttcgacc ccttcgggtt ctcggacgag 21240

cgcctcaagc agatctacca gttcgagtac gagggcctgc tgcgccgcag cgccctggcc 21300

accgaggacc gctgcgtcac cctggaaaag tccacccaga ccgtgcaggg tccgcgctcg 21360

gccgcctgcg ggctcttctg ctgcatgttc ctgcacgcct tcgtgcactg gcccgaccgc 21420

cccatggaca agaaccccac catgaacttg ctgacggggg tgcccaacgg catgctccag 21480

tcgccccagg tggaacccac cctgcgccgc aaccaggagg cgctctaccg cttcctcaac 21540

tcccactccg cctactttcg ctcccaccgc gcgcgcatcg agaaggccac cgccttcgac 21600

cgcatgaatc aagacatgta aaccgtgtgt gtatgttaaa tgtctttaat aaacagcact 21660

ttcatgttac acatgcatct gagatgattt atttagaaat cgaaagggtt ctgccgggtc 21720

tcggcatggc ccgcgggcag ggacacgttg cggaactggt acttggccag ccacttgaac 21780

tcggggatca gcagtttggg cagcggggtg tcggggaagg agtcggtcca cagcttccgc 21840

gtcagttgca gggcgcccag caggtcgggc gcggagatct tgaaatcgca gttgggaccc 21900

gcgttctgcg cgcgggagtt gcggtacacg gggttgcagc actggaacac catcagggcc 21960

gggtgcttca cgctcgccag caccgtcgcg tcggtgatgc tctccacgtc gaggtcctcg 22020

gcgttggcca tcccgaaggg ggtcatcttg caggtctgcc ttcccatggt gggcacgcac 22080

ccgggcttgt ggttgcaatc gcagtgcagg gggatcagca tcatctgggc ctggtcggcg 22140

ttcatccccg ggtacatggc cttcatgaaa gcctccaatt gcctgaacgc ctgctgggcc 22200

ttggctccct cggtgaagaa gaccccgcag gacttgctag agaactggtt ggtggcgcac 22260

ccggcgtcgt gcacgcagca gcgcgcgtcg ttgttggcca gctgcaccac gctgcgcccc 22320

cagcggttct gggtgatctt ggcccggtcg gggttctcct tcagcgcgcg ctgcccgttc 22380

tcgctcgcca catccatctc gatcatgtgc tccttctgga tcatggtggt cccgtgcagg 22440

caccgcagct tgccctcggc ctcggtgcac ccgtgcagcc acagcgcgca cccggtgcac 22500

tcccagttct tgtgggcgat ctgggaatgc gcgtgcacga agccctgcag gaagcggccc 22560

atcatggtgg tcagggtctt gttgctagtg aaggtcagcg gaatgccgcg gtgctcctcg 22620

ttgatgtaca ggtggcagat gcggcggtac acctcgccct gctcgggcat cagctggaag 22680

ttggctttca ggtcggtctc cacgcggtag cggtccatca gcatagtcat gatttccata 22740

cccttctccc aggccgagac gatgggcagg ctcatagggt tcttcaccat catcttagcg 22800

ctagcagccg cggccagggg gtcgctctcg tccagggtct caaagctccg cttgccgtcc 22860

ttctcggtga tccgcaccgg ggggtagctg aagcccacgg ccgccagctc ctcctcggcc 22920

tgtctttcgt cctcgctgtc ctggctgacg tcctgcagga ccacatgctt ggtcttgcgg 22980

ggtttcttct tgggcggcag cggcggcgga gatgttggag atggcgaggg ggagcgcgag 23040

ttctcgctca ccactactat ctcttcctct tcttggtccg aggccacgcg gcggtaggta 23100

tgtctcttcg ggggcagagg cggaggcgac gggctctcgc cgccgcgact tggcggatgg 23160

ctggcagagc cccttccgcg ttcgggggtg cgctcccggc ggcgctctga ctgacttcct 23220

ccgcggccgg ccattgtgtt ctcctaggga ggaacaacaa gcatggagac tcagccatcg 23280

ccaacctcgc catctgcccc caccgccgac gagaagcagc agcagcagaa tgaaagctta 23340

accgccccgc cgcccagccc cgccacctcc gacgcggccg tcccagacat gcaagagatg 23400

gaggaatcca tcgagattga cctgggctat gtgacgcccg cggagcacga ggaggagctg 23460

gcagtgcgct tttcacaaga agagatacac caagaacagc cagagcagga agcagagaat 23520

gagcagagtc aggctgggct cgagcatgac ggcgactacc tccacctgag cgggggggag 23580

gacgcgctca tcaagcatct ggcccggcag gccaccatcg tcaaggatgc gctgctcgac 23640

cgcaccgagg tgcccctcag cgtggaggag ctcagccgcg cctacgagtt gaacctcttc 23700

tcgccgcgcg tgccccccaa gcgccagccc aatggcacct gcgagcccaa cccgcgcctc 23760

aacttctacc cggtcttcgc ggtgcccgag gccctggcca cctaccacat ctttttcaag 23820

aaccaaaaga tccccgtctc ctgccgcgcc aaccgcaccc gcgccgacgc ccttttcaac 23880

ctgggtcccg gcgcccgcct acctgatatc gcctccttgg aagaggttcc caagatcttc 23940

gagggtctgg gcagcgacga gactcgggcc gcgaacgctc tgcaaggaga aggaggagag 24000

catgagcacc acagcgccct ggtcgagttg gaaggcgaca acgcgcggct ggcggtgctc 24060

aaacgcacgg tcgagctgac ccatttcgcc tacccggctc tgaacctgcc ccccaaagtc 24120

atgagcgcgg tcatggacca ggtgctcatc aagcgcgcgt cgcccatctc cgaggacgag 24180

ggcatgcaag actccgagga gggcaagccc gtggtcagcg acgagcagct ggcccggtgg 24240

ctgggtccta atgctagtcc ccagagtttg gaagagcggc gcaaactcat gatggccgtg 24300

gtcctggtga ccgtggagct ggagtgcctg cgccgcttct tcgccgacgc ggagaccctg 24360

cgcaaggtcg aggagaacct gcactacctc ttcaggcacg ggttcgtgcg ccaggcctgc 24420

aagatctcca acgtggagct gaccaacctg gtctcctaca tgggcatctt gcacgagaac 24480

cgcctggggc agaacgtgct gcacaccacc ctgcgcgggg aggcccggcg cgactacatc 24540

cgcgactgcg tctacctcta cctctgccac acctggcaga cgggcatggg cgtgtggcag 24600

cagtgtctgg aggagcagaa cctgaaagag ctctgcaagc tcctgcagaa gaacctcaag 24660

ggtctgtgga ccgggttcga cgagcgcacc accgcctcgg acctggccga cctcattttc 24720

cccgagcgcc tcaggctgac gctgcgcaac ggcctgcccg actttatgag ccaaagcatg 24780

ttgcaaaact ttcgctcttt catcctcgaa cgctccggaa tcctgcccgc cacctgctcc 24840

gcgctgccct cggacttcgt gccgctgacc ttccgcgagt gccccccgcc gctgtggagc 24900

cactgctacc tgctgcgcct ggccaactac ctggcctacc actcggacgt gatcgaggac 24960

gtcagcggcg agggcctgct cgagtgccac tgccgctgca acctctgcac gccgcaccgc 25020

tccctggcct gcaaccccca gctgctgagc gagacccaga tcatcggcac cttcgagttg 25080

caagggccca gcgaaggcga gggttcagcc gccaaggggg gtctgaaact caccccgggg 25140

ctgtggacct cggcctactt gcgcaagttc gtgcccgagg actaccatcc cttcgagatc 25200

aggttctacg aggaccaatc ccatccgccc aaggccgagc tgtcggcctg cgtcatcacc 25260

caggggggcga tcctggccca attgcaagcc atccagaaat cccgccaaga attcttgctg 25320

aaaaagggcc gcggggtcta cctcgacccc cagaccggtg aggagctcaa ccccggcttc 25380

ccccaggatg ccccgaggaa acaagaagct gaaagtggag ctgccgcccg tggaggattt 25440

ggaggaagac tgggagaaca gcagtcaggc agaggaggag gagatggagg aagactggga 25500

cagcactcag gcagaggagg acagcctgca agacagtctg gaggaagacg aggaggaggc 25560

agaggaggag gtggaagaag cagccgccgc cagaccgtcg tcctcggcgg gggagaaagc 25620

aagcagcacg gataccatct ccgctccggg tcggggtccc gctcgaccac acagtagatg 25680

ggacgagacc ggacgattcc cgaaccccac cacccagacc ggtaagaagg agcggcaggg 25740

atacaagtcc tggcgggggc acaaaaacgc catcgtctcc tgcttgcagg cctgcggggg 25800

caacatctcc ttcacccggc gctacctgct cttccaccgc ggggtgaact ttccccgcaa 25860

catcttgcat tactaccgtc acctccacag cccctactac ttccaagaag aggcagcagc 25920

agcagaaaaa gaccagcaga aaaccagcag ctagaaaatc cacagcggcg gcagcaggtg 25980

gactgaggat cgcggcgaac gagccggcgc aaacccggga gctgaggaac cggatctttc 26040

ccaccctcta tgccatcttc cagcagagtc gggggcagga gcaggaactg aaagtcaaga 26100

accgttctct gcgctcgctc acccgcagtt gtctgtatca caagagcgaa gaccaacttc 26160

agcgcactct cgaggacgcc gaggctctct tcaacaagta ctgcgcgctc actcttaaag 26220

agtagcccgc gcccgcccag tcgcagaaaa aggcgggaat tacgtcacct gtgcccttcg 26280

ccctagccgc ctccacccat catcatgagc aaagagattc ccacgcctta catgtggagc 26340

taccagcccc agatgggcct ggccgccggt gccgcccagg actactccac ccgcatgaat 26400

tggctcagcg ccgggcccgc gatgatctca cgggtgaatg acatccgcgc ccaccgaaac 26460

cagatactcc tagaacagtc agcgctcacc gccacgcccc gcaatcacct caatccgcgt 26520

aattggcccg ccgccctggt gtaccaggaa attccccagc ccacgaccgt actacttccg 26580

cgagacgccc aggccgaagt ccagctgact aactcaggtg tccagctggc gggcggcgcc 26640

accctgtgtc gtcaccgccc cgctcagggt ataaagcggc tggtgatccg gggcagaggc 26700

acacagctca acgacgaggt ggtgagctct tcgctgggtc tgcgacctga cggagtcttc 26760

caactcgccg gatcggggag atcttccttc acgcctcgtc aggccgtcct gactttggag 26820

agttcgtcct cgcagccccg ctcgggtggc atcggcactc tccagttcgt ggaggagttc 26880

actccctcgg tctacttcaa ccccttctcc ggctcccccg gccactaccc ggacgagttc 26940

atcccgaact tcgacgccat cagcgagtcg gtggacggct acgattgaaa ctaatcaccc 27000

ccttatccag tgaaataaag atcatattga tgatgatttt acagaaataa aaaataatca 27060

tttgatttga aataaagata caatcatatt gatgatttga gtttaacaaa aaaataaaga 27120

atcacttact tgaaatctga taccaggtct ctgtccatgt tttctgccaa caccacttca 27180

ctcccctctt cccagctctg gtactgcagg ccccggcggg ctgcaaactt cctccacacg 27240

ctgaagggga tgtcaaattc ctcctgtccc tcaatcttca ttttatcttc tatcagatgt 27300

ccaaaaagcg cgtccgggtg gatgatgact tcgaccccgt ctacccctac gatgcagaca 27360

acgcaccgac cgtgcccttc atcaaccccc ccttcgtctc ttcagatgga ttccaagaga 27420

agcccctggg ggtgttgtcc ctgcgactgg ccgaccccgt caccaccaag aacggggaaa 27480

tcaccctcaa gctgggagag ggggtggacc tcgattcctc gggaaaactc atctccaaca 27540

cggccaccaa ggccgccgcc cctctcagtt tttccaacaa caccatttcc cttaacatgg 27600

atcacccctt ttacactaaa gatggaaaat tatccttaca agtttctcca ccattaaata 27660

tactgagaac aagcattcta aacacactag ctttaggttt tggatcaggt ttaggactcc 27720

gtggctctgc cttggcagta cagttagtct ctccacttac atttgatact gatggaaaca 27780

taaagcttac cttagacaga ggtttgcatg ttacaacagg agatgcaatt gaaagcaaca 27840

taagctgggc taaaggttta aaatttgaag atggagccat agcaaccaac attggaaatg 27900

ggttagagtt tggaagcagt agtacagaaa caggtgttga tgatgcttac ccaatccaag 27960

ttaaacttgg atctggcctt agctttgaca gtacaggagc cataatggct ggtaacaaag 28020

aagacgataa actcactttg tggacaacac ctgatccatc accaaactgt caaatactcg 28080

cagaaaatga tgcaaaacta acactttgct tgactaaatg tggtagtcaa atactggcca 28140

ctgtgtcagt cttagttgta ggaagtggaa acctaaaccc cattactggc accgtaagca 28200

gtgctcaggt gtttctacgt tttgatgcaa acggtgttct tttaacagaa cattctacac 28260

taaaaaaata ctgggggtat aggcagggag atagcataga tggcactcca tataccaatg 28320

ctgtaggatt catgcccaat ttaaaagctt atccaaagtc acaaagttct actactaaaa 28380

ataatatagt agggcaagta tacatgaatg gagatgtttc aaaacctatg cttctcacta 28440

taaccctcaa tggtactgat gacagcaaca gtacatattc aatgtcattt tcatacacct 28500

ggactaatgg aagctatgtt ggagcaacat ttggggctaa ctcttatacc ttctcataca 28560

tcgcccaaga atgaacactg tatcccaccc tgcatgccaa cccttcccac cccactctgt 28620

ggaacaaact ctgaaacaca aaataaaata aagttcaagt gttttattga ttcaacagtt 28680

ttacaggatt cgagcagtta tttttcctcc accctcccag gacatggaat acaccaccct 28740

ctccccccgc acagccttga acatctgaat gccattggtg atggacatgc ttttggtctc 28800

cacgttccac acagtttcag agcgagccag tctcgggtcg gtcagggaga tgaaaccctc 28860

cgggcactcc cgcatctgca cctcacagct caacagctga ggattgtcct cggtggtcgg 28920

gatcacggtt atctggaaga agcagaagag cggcggtggg aatcatagtc cgcgaacggg 28980

atcggccggt ggtgtcgcat caggccccgc agcagtcgct gccgccgccg ctccgtcaag 29040

ctgctgctca gggggtccgg gtccagggac tccctcagca tgatgcccac ggccctcagc 29100

atcagtcgtc tggtgcggcg ggcgcagcag cgcatgcgga tctcgctcag gtcgctgcag 29160

tacgtgcaac acagaaccac caggttgttc aacagtccat agttcaacac gctccagccg 29220

aaactcatcg cgggaaggat gctacccacg tggccgtcgt accagatcct caggtaaatc 29280

aagtggtgcc ccctccagaa cacgctgccc acgtacatga tctccttggg catgtggcgg 29340

ttcaccacct cccggtacca catcaccctc tggttgaaca tgcagccccg gatgatcctg 29400

cggaaccaca gggccagcac cgccccgccc gccatgcagc gaagagaccc cgggtcccgg 29460

caatggcaat ggaggaccca ccgctcgtac ccgtggatca tctgggagct gaacaagtct 29520

atgttggcac agcacaggca tatgctcatg catctcttca gcactctcaa ctcctcgggg 29580

gtcaaaacca tatcccaggg cacggggaac tcttgcagga cagcgaaccc cgcagaacag 29640

ggcaatcctc gcacagaact tacattgtgc atggacaggg tatcgcaatc aggcagcacc 29700

gggtgatcct ccaccagaga agcgcgggtc tcggtctcct cacagcgtgg taaggggcc 29760

ggccgatacg ggtgatggcg ggacgcggct gatcgtgttc gcgaccgtgt catgatgcag 29820

ttgctttcgg acattttcgt acttgctgta gcagaacctg gtccgggcgc tgcacaccga 29880

tcgccggcgg cggtctcggc gcttggaacg ctcggtgttg aaattgtaaa acagccactc 29940

tctcagaccg tgcagcagat ctagggcctc aggagtgatg aagatcccat catgcctgat 30000

ggctctgatc acatcgacca ccgtggaatg ggccagaccc agccagatga tgcaattttg 30060

ttgggtttcg gtgacggcga gcctcgggaa caacgatgaa gtaaatgcaa gcggtgcgtt 30120

ccagcatggt tagttagctg atctgtagaa aaaacaaaaa tgaacattaa accatgctag 30180

cctggcgaac aggtgggtaa atcgttctct ccagcaccag gcaggccacg gggtctccgg 30240

cgcgaccctc gtaaaaattg tcgctatgat tgaaaaccat cacagagaga cgttcccggt 30300

ggccggcgtg aatgattcga caagatgaat acacccccgg aacattggcg tccgcgagtg 30360

aaaaaaagcg cccgaggaag caataaggca ctacaatgct cagtctcaag tccagcaaag 30420

cgatgccatg cggatgaagc acaaaattct caggtgcgta caaaatgtaa ttactccccc 30480

cctgcacagg cagcaaagcc cccgatccct ccaggtacac atacaaagcc tcagcgtcca 30540

tagcttaccg agcagcagca cacaacaggc gcaagagtca gagaaaggct gagctctaac 30600

ctgtccaccc gctctctgct caatatatag cccagatcta cactgacgta aaggccaaag 30660

tctaaaaata cccgccaaat aatcacacac gcccagcaca cgcccagaaa ccggtgacac 30720

actcaaaaaa atacgcgcac ttcctcaaac gcccaaaact gccgtcattt ccgggttccc 30780

acgctacgtc atcaaaacac gactttcaaa ttccgtcgac cgttaaaaac gtcacccgcc 30840

ccgcccctaa cggtcgcccg tctctcagcc aatcagcgcc ccgcatcccc aaattcaaac 30900

acctcatttg catattaacg cgcacaaaaa gtttgaggta tattattgat gatg 30954

<210> 70
<211> 23
<212> DNA
<213> Artificial Sequence

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

<400> 70
aaagtgaaag tcgagtttac cac 23

<210> 71
<211> 30930
<212> DNA
<213> Artificial Sequence

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

<400> 71
catcatcaat aatatacctc aaacttttg tgcgcgttaa tatgcaaatg aggcgtttga 60

atttggggag gaagggcggt gattggtcga gggatgagcg accgttaggg gcggggcgag 120

tgacgttttg atgacgtggt tgcgaggagg agccagtttg caagttctcg tgggaaaagt 180

gacgtcaaac gaggtgtggt ttgaacacgg aaatactcaa ttttcccgcg ctctctgaca 240

ggaaatgagg tgtttctggg cggatgcaag tgaaaacggg ccattttcgc gcgaaaactg 300

aatgaggaag tgaaaatctg agtaatttcg cgtttatggc agggaggagt atttgccgag 360

ggccgagtag actttgaccg attacgtggg ggtttcgatt accgtgtttt tcacctaaat 420

ttccgcgtac ggtgtcaaag tccggtgttt ttacgtaggt gtcagctgat cgccagggta 480

tttaaacctg cgctctccag tcaagaggcc actcttgagt gccagcgaga agagttttct 540

cctccgcgcc gcgagtcaga tctacacttt gaaagtaggg ataacagggt aatgacattg 600

attattgact agttgttaat agtaatcaat tacggggtca ttagttcata gcccatatat 660

ggagttccgc gttacataac ttacggtaaa tggcccgcct ggctgaccgc ccaacgaccc 720

ccgcccattg acgtcaataa tgacgtatgt tcccatagta acgccaatag ggactttcca 780

ttgacgtcaa tgggtggagt atttacggta aactgcccac ttggcagtac atcaagtgta 840

tcatatgcca agtccgcccc ctattgacgt caatgacggt aaatggcccg cctggcatta 900

tgcccagtac atgaccttac gggactttcc tacttggcag tacatctacg tattagtcat 960

cgctattacc atggtgatgc ggttttggca gtacaccaat gggcgtggat agcggtttga 1020

ctcacgggga tttccaagtc tccaccccat tgacgtcaat gggagtttgt tttggcacca 1080

aaatcaacgg gactttccaa aatgtcgtaa taaccccgcc ccgttgacgc aaatgggcgg 1140

taggcgtgta cggtgggagg tctatataag cagagctctc cctatcagtg atagagatct 1200

ccctatcagt gatagagatc gtcgacgagc tcgtttagtg aaccgtcaga tcgcctggaa 1260

cgccatccac gctgttttga cctccataga agacagcgat cgcgccacca tggccgggat 1320

gttccaggca ctgtccgaag gctgcacacc ctatgatatt aaccagatgc tgaatgtcct 1380

gggagaccac caggtctctg gcctggagca gctggagagc atcatcaact tcgagaagct 1440

gaccgagtgg acaagctcca atgtgatgcc tatcctgtcc ccactgacca agggcatcct 1500

gggcttcgtg tttaccctga cagtgccttc tgagcggggc ctgtcttgca tcagcgaggc 1560

agacgcaacc acaccagagt ccgccaatct gggcgaggag atcctgtctc agctgtacct 1620

gtggccccgg gtgacatatc actccccttc ttacgcctat caccagttcg agcggagagc 1680

caagtacaag agacacttcc caggctttgg ccagtctctg ctgttcggct accccgtgta 1740

cgtgttcggc gattgcgtgc agggcgactg ggatgccatc cggtttagat actgcgcacc 1800

acctggatat gcactgctga ggtgtaacga caccaattat tccgccctgc tggcagtggg 1860

cgccctggag ggccctcgca atcaggattg gctgggcgtg ccaaggcagc tggtgacacg 1920

catgcaggcc atccagaacg caggcctgtg caccctggtg gcaatgctgg aggagacaat 1980

cttctggctg caggcctttc tgatggccct gaccgacagc ggccccaaga caaacatcat 2040

cgtggattcc cagtacgtga tgggcatctc caagccttct ttccaggagt ttgtggactg 2100

ggagaacgtg agcccagagc tgaattccac cgatcagcca ttctggcagg caggaatcct 2160

ggcaaggaac ctggtgccta tggtggccac agtgcagggc cagaatctga agtaccaggg 2220

ccagagcctg gtcatcagcg cctccatcat cgtgtttaac ctgctggagc tggagggcga 2280

ctatcgggac gatggcaacg tgtgggtgca caccccactg agccccagaa cactgaacgc 2340

ctgggtgaag gccgtggagg agaagaaggg catcccagtg cacctggagc tggcctccat 2400

gaccaatatg gagctgatgt ctagcatcgt gcaccagcag gtgaggacat acggacccgt 2460

gttcatgtgc ctgggaggcc tgctgaccat ggtggcagga gccgtgtggc tgacagtgcg 2520

ggtgctggag ctgttcagag ccgcccagct ggccaacgat gtggtgctgc agatcatgga 2580

gctgtgcgga gcagcctttc gccaggtgtg ccacaccaca gtgccatggc ccaatgcctc 2640

cctgaccccc aagtggaaca atgagacaac acagcctcag atcgccaact gtagcgtgta 2700

cgacttcttc gtgtggctgc actactatag cgtgagggat accctgtggc cccgcgtgac 2760

ataccacatg aataagtacg cctatcacat gctggagagg cgcgccaagt ataagagagg 2820

ccctggccca ggcgcaaagt ttgtggcagc atggaccctg aaggccgccg ccggccccgg 2880

ccccggccag tatatcaagg ctaacagtaa gttcattgga atcacagagc tgggacccgg 2940

acctggataa tgagtttaaa ctcccattta aatgtgaggg ttaatgcttc gagcagacat 3000

gataagatac attgatgagt ttggacaaac cacaactaga atgcagtgaa aaaaatgctt 3060

tatttgtgaa atttgtgatg ctattgcttt atttgtaacc attataagct gcaataaaca 3120

agttaacaac aacaattgca ttcattttat gtttcaggtt caggggggaga tgtgggaggt 3180

tttttaaagc aagtaaaacc tctacaaatg tggtaaaata actataacgg tcctaaggta 3240

gcgagtgagt agtgttctgg ggcgggggag gacctgcatg agggccagaa taactgaaat 3300

ctgtgctttt ctgtgtgttg cagcagcatg agcggaagcg gctcctttga gggaggggta 3360

ttcagccctt atctgacggg gcgtctcccc tcctgggcgg gagtgcgtca gaatgtgatg 3420

ggatccacgg tggacggccg gcccgtgcag cccgcgaact cttcaaccct gacctatgca 3480

accctgagct cttcgtcgtt ggacgcagct gccgccgcag ctgctgcatc tgccgccagc 3540

gccgtgcgcg gaatggccat gggcgccggc tactacggca ctctggtggc caactcgagt 3600

tccaccaata atcccgccag cctgaacgag gagaagctgt tgctgctgat ggcccagctc 3660

gaggccttga cccagcgcct gggcgagctg acccagcagg tggctcagct gcaggagcag 3720

acgcgggccg cggttgccac ggtgaaatcc aaataaaaaa tgaatcaata aataaacgga 3780

gacggttgtt gattttaaca cagagtctga atctttattt gatttttcgc gcgcggtagg 3840

ccctggacca ccggtctcga tcattgagca cccggtggat cttttccagg acccggtaga 3900

ggtgggcttg gatgttgagg tacatgggca tgagcccgtc ccgggggtgg aggtagctcc 3960

attgcagggc ctcgtgctcg ggggtggtgt tgtaaatcac ccagtcatag caggggcgca 4020

gggcatggtg ttgcacaata tctttgagga ggagactgat ggccacgggc agcccttttgg 4080

tgtaggtgtt tacaaatctg ttgagctggg agggatgcat gcgggggggag atgaggtgca 4140

tcttggcctg gatcttgaga ttggcgatgt taccgcccag atcccgcctg gggttcatgt 4200

tgtgcaggac caccagcacg gtgtatccgg tgcacttggg gaatttatca tgcaacttgg 4260

aagggaaggc gtgaaagaat ttggcgacgc ctttgtgccc gcccaggttt tccatgcact 4320

catccatgat gatggcgatg ggcccgtggg cggcggcctg ggcaaagacg tttcgggggt 4380

cggacacatc atagttgtgg tcctgggtga ggtcatcata ggccatttta atgaatttgg 4440

ggcggagggt gccggactgg gggacaaagg ttccctcgat cccgggggcg tagttccccct 4500

cacagatctg catctcccag gctttgagct cggaggggggg gatcatgtcc acctgcgggg 4560

cgataaagaa cacggtttcc ggggcggggg agatgagctg ggccgaaagc aagttccgga 4620

gcagctggga cttgccgcag ccggtggggc cgtagatgac cccgatgacc ggctgcaggt 4680

ggtagttgag ggagagacag ctgccgtcct cccggaggag gggggccacc tcgttcatca 4740

tctcgcgcac gtgcatgttc tcgcgcacca gttccgccag gaggcgctct ccccccaggg 4800

ataggagctc ctggagcgag gcgaagtttt tcagcggctt gagtccgtcg gccatgggca 4860

ttttggagag ggtttgttgc aagagttcca ggcggtccca gagctcggtg atgtgctcta 4920

cggcatctcg atccagcaga cctcctcgtt tcgcgggttg ggacggctgc gggagtaggg 4980

caccagacga tgggcgtcca gcgcagccag ggtccggtcc ttccagggtc gcagcgtccg 5040

cgtcagggtg gtctccgtca cggtgaaggg gtgcgcgccg ggctgggcgc ttgcgagggt 5100

gcgcttcagg ctcatccggc tggtcgaaaa ccgctcccga tcggcgccct gcgcgtcggc 5160

caggtagcaa ttgaccatga gttcgtagtt gagcgcctcg gccgcgtggc ctttggcgcg 5220

gagcttacct ttggaagtct gcccgcaggc gggacagagg agggacttga gggcgtagag 5280

cttgggggcg aggaagacgg actcgggggc gtaggcgtcc gcgccgcagt gggcgcagac 5340

ggtctcgcac tccacgagcc aggtgaggtc gggctggtcg gggtcaaaaa ccagtttccc 5400

gccgttcttt ttgatgcgtt tcttaccttt ggtctccatg agctcgtgtc cccgctgggt 5460

gacaaagagg ctgtccgtgt ccccgtagac cgactttatg ggccggtcct cgagcggtgt 5520

gccgcggtcc tcctcgtaga ggaaccccgc ccactccgag acgaaagccc gggtccaggc 5580

cagcacgaag gaggccacgt gggacgggta gcggtcgttg tccaccagcg ggtccacctt 5640

ttccagggta tgcaaacaca tgtccccctc gtccacatcc aggaaggtga ttggcttgta 5700

agtgtaggcc acgtgaccgg gggtcccggc cgggggggta taaaagggtg cgggtccctg 5760

ctcgtcctca ctgtcttccg gatcgctgtc caggagcgcc agctgttggg gtaggtattc 5820

cctctcgaag gcgggcatga cctcggcact caggttgtca gtttctagaa acgaggagga 5880

tttgatattg acggtgccgg cggagatgcc tttcaagagc ccctcgtcca tctggtcaga 5940

aaagacgatc tttttgttgt cgagcttggt ggcgaaggag ccgtagaggg cgttggagag 6000

gagcttggcg atggagcgca tggtctggtt tttttccttg tcggcgcgct ccttggcggc 6060

gatgttgagc tgcacgtact cgcgcgccac gcacttccat tcggggaaga cggtggtcag 6120

ctcgtcgggc acgattctga cctgccagcc ccgattatgc agggtgatga ggtccacact 6180

ggtggccacc tcgccgcgca ggggctcatt agtccagcag aggcgtccgc ccttgcgcga 6240

gcagaagggg ggcagggggt ccagcatgac ctcgtcgggg gggtcggcat cgatggtgaa 6300

gatgccgggc aggaggtcgg ggtcaaagta gctgatggaa gtggccagat cgtccagggc 6360

agcttgccat tcgcgcacgg ccagcgcgcg ctcgtaggga ctgaggggcg tgccccaggg 6420

catgggatgg gtaagcgcgg aggcgtacat gccgcagatg tcgtagacgt agaggggctc 6480

ctcgaggatg ccgatgtagg tggggtagca gcgccccccg cggatgctgg cgcgcacgta 6540

gtcatacagc tcgtgcgagg gggcgaggag ccccgggccc aggttggtgc gactgggctt 6600

ttcggcgcgg tagacgatct ggcggaaaat ggcatgcgag ttggaggaga tggtgggcct 6660

ttggaagatg ttgaagtggg cgtggggcag tccgaccgag tcgcggatga agtgggcgta 6720

ggagtcttgc agcttggcga cgagctcggc ggtgactagg acgtccagag cgcagtagtc 6780

gagggtctcc tggatgatgt catacttgag ctgtcccttt tgtttccaca gctcgcggtt 6840

gagaaggaac tcttcgcggt ccttccagta ctcttcgagg gggaacccgt cctgatctgc 6900

acggtaagag cctagcatgt agaactggtt gacggccttg taggcgcagc agcccttctc 6960

cacggggagg gcgtaggcct gggcggcctt gcgcagggag gtgtgcgtga gggcgaaagt 7020

gtccctgacc atgaccttga ggaactggtg cttgaagtcg atatcgtcgc agccccctg 7080

ctcccagagc tggaagtccg tgcgcttctt gtaggcgggg ttgggcaaag cgaaagtaac 7140

atcgttgaag aggatcttgc ccgcgcgggg cataaagttg cgagtgatgc ggaaaggttg 7200

gggcacctcg gcccggttgt tgatgacctg ggcggcgagc acgatctcgt cgaagccgtt 7260

gatgttgtgg cccacgatgt agagttccac gaatcgcgga cggcccttga cgtggggcag 7320

tttcttgagc tcctcgtagg tgagctcgtc ggggtcgctg agcccgtgct gctcgagcgc 7380

ccagtcggcg agatgggggt tggcgcggag gaaggaagtc cagagatcca cggccagggc 7440

ggtttgcaga cggtcccggt actgacggaa ctgctgcccg acggccattt tttcgggggt 7500

gacgcagtag aaggtgcggg ggtccccgtg ccagcgatcc catttgagct ggagggcgag 7560

atcgagggcg agctcgacga gccggtcgtc cccggagagt ttcatgacca gcatgaaggg 7620

gacgagctgc ttgccgaagg accccatcca ggtgtaggtt tccacatcgt aggtgaggaa 7680

gagcctttcg gtgcgaggat gcgagccgat ggggaagaac tggatctcct gccaccaatt 7740

ggaggaatgg ctgttgatgt gatggaagta gaaatgccga cggcgcgccg aacactcgtg 7800

cttgtgttta tacaagcggc cacagtgctc gcaacgctgc acgggatgca cgtgctgcac 7860

gagctgtacc tgagttcctt tgacgaggaa tttcagtggg aagtggagtc gtggcgcctg 7920

catctcgtgc tgtactacgt cgtggtggtc ggcctggccc tcttctgcct cgatggtggt 7980

catgctgacg agcccgcgcg ggaggcaggt ccagacctcg gcgcgagcgg gtcggagagc 8040

gaggacgagg gcgcgcaggc cggagctgtc cagggtcctg agacgctgcg gagtcaggtc 8100

agtgggcagc ggcggcgcgc ggttgacttg caggagtttt tccagggcgc gcgggaggtc 8160

cagatggtac ttgatctcca ccgcgccatt ggtggcgacg tcgatggctt gcagggtccc 8220

gtgcccctgg ggtgtgacca ccgtcccccg tttcttcttg ggcggctggg gcgacggggg 8280

cggtgcctct tccatggtta gaagcggcgg cgaggacgcg cgccgggcgg caggggcggc 8340

tcggggcccg gaggcagggg cggcaggggc acgtcggcgc cgcgcgcggg taggttctgg 8400

tactgcgccc ggagaagact ggcgtgagcg acgacgcgac ggttgacgtc ctggatctga 8460

cgcctctggg tgaaggccac gggacccgtg agtttgaacc tgaaagagag ttcgacagaa 8520

tcaatctcgg tatcgttgac ggcggcctgc cgcaggatct cttgcacgtc gcccgagttg 8580

tcctggtagg cgatctcggt catgaactgc tcgatctcct cctcttgaag gtctccgcgg 8640

ccggcgcgct ccacggtggc cgcgaggtcg ttggagatgc ggcccatgag ctgcgagaag 8700

gcgttcatgc ccgcctcgtt ccagacgcgg ctgtagacca cgacgccctc gggatcgcgg 8760

gcgcgcatga ccacctgggc gaggttgagc tccacgtggc gcgtgaagac cgcgtagttg 8820

cagaggcgct ggtagaggta gttgagcgtg gtggcgatgt gctcggtgac gaagaaatac 8880

atgatccagc ggcggagcgg catctcgctg acgtcgccca gcgcctccaa acgttccatg 8940

gcctcgtaaa agtccacggc gaagttgaaa aactgggagt tgcgcgccga gacggtcaac 9000

tcctcctcca gaagacggat gagctcggcg atggtggcgc gcacctcgcg ctcgaaggcc 9060

cccgggagtt cctccacttc ctcttcttcc tcctccacta acatctcttc tacttcctcc 9120

tcaggcggca gtggtggcgg gggaggggcc ctgcgtcgcc ggcggcgcac gggcagacgg 9180

tcgatgaagc gctcgatggt ctcgccgcgc cggcgtcgca tggtctcggt gacggcgcgc 9240

ccgtcctcgc ggggccgcag cgtgaagacg ccgccgcgca tctccaggtg gccgggggg 9300

tccccgttgg gcagggagag ggcgctgacg atgcatctta tcaattgccc cgtagggact 9360

ccgcgcaagg acctgagcgt ctcgagatcc acgggatctg aaaaccgctg aacgaaggct 9420

tcgagccagt cgcagtcgca aggtaggctg agcacggttt cttctggcgg gtcatgttgg 9480

ttgggagcgg ggcgggcgat gctgctggtg atgaagttga aataggcggt tctgagacgg 9540

cggatggtgg cgaggagcac caggtctttg ggcccggctt gctggatgcg cagacggtcg 9600

gccatgcccc aggcgtggtc ctgacacctg gccaggtcct tgtagtagtc ctgcatgagc 9660

cgctccacgg gcacctcctc ctcgcccgcg cggccgtgca tgcgcgtgag cccgaagccg 9720

cgctggggct ggacgagcgc caggtcggcg acgacgcgct cggcgaggat ggcttgctgg 9780

atctgggtga gggtggtctg gaagtcatca aagtcgacga agcggtggta ggctccggtg 9840

ttgatggtgt aggagcagtt ggccatgacg gaccagttga cggtctggtg gcccggacgc 9900

acgagctcgt ggtacttgag gcgcgagtag gcgcgcgtgt cgaagatgta gtcgttgcag 9960

gtgcgcacca ggtactggta gccgatgagg aagtgcggcg gcggctggcg gtagagcggc 10020

catcgctcgg tggcgggggc gccgggcgcg aggtcctcga gcatggtgcg gtggtagccg 10080

tagatgtacc tggacatcca ggtgatgccg gcggcggtgg tggaggcgcg cgggaactcg 10140

cggacgcggt tccagatgtt gcgcagcggc aggaagtagt tcatggtggg cacggtctgg 10200

cccgtgaggc gcgcgcagtc gtggatgctc tatacgggca aaaacgaaag cggtcagcgg 10260

ctcgactccg tggcctggag gctaagcgaa cgggttgggc tgcgcgtgta ccccggttcg 10320

aatctcgaat caggctggag ccgcagctaa cgtggtattg gcactcccgt ctcgacccaa 10380

gcctgcacca accctccagg atacggaggc gggtcgtttt gcaacttttt tttggaggcc 10440

ggatgagact agtaagcgcg gaaagcggcc gaccgcgatg gctcgctgcc gtagtctgga 10500

gaagaatcgc cagggttgcg ttgcggtgtg ccccggttcg aggccggccg gattccgcgg 10560

ctaacgaggg cgtggctgcc ccgtcgtttc caagacccca tagccagccg acttctccag 10620

ttacggagcg agcccctctt ttgttttgtt tgtttttgcc agatgcatcc cgtactgcgg 10680

cagatgcgcc cccaccaccc tccaccgcaa caacagcccc ctccacagcc ggcgcttctg 10740

cccccgcccc agcagcaact tccagccacg accgccgcgg ccgccgtgag cggggctgga 10800

cagagttatg atcaccagct ggccttggaa gagggcgagg ggctggcgcg cctgggggcg 10860

tcgtcgccgg agcggcaccc gcgcgtgcag atgaaaaggg acgctcgcga ggcctacgtg 10920

cccaagcaga acctgttcag agacaggagc ggcgaggagc ccgaggagat gcgcgcggcc 10980

cggttccacg cggggcggga gctgcggcgc ggcctggacc gaaagagggt gctgagggac 11040

gaggatttcg aggcggacga gctgacgggg atcagccccg cgcgcgcgca cgtggccgcg 11100

gccaacctgg tcacggcgta cgagcagacc gtgaaggagg agagcaactt ccaaaaatcc 11160

ttcaacaacc acgtgcgcac cctgatcgcg cgcgaggagg tgaccctggg cctgatgcac 11220

ctgtgggacc tgctggaggc catcgtgcag aaccccacca gcaagccgct gacggcgcag 11280

ctgttcctgg tggtgcagca tagtcgggac aacgaagcgt tcagggaggc gctgctgaat 11340

atcaccgagc ccgagggccg ctggctcctg gacctggtga acattctgca gagcatcgtg 11400

gtgcaggagc gcgggctgcc gctgtccgag aagctggcgg ccatcaactt ctcggtgctg 11460

agtttgggca agtactacgc taggaagatc tacaagaccc cgtacgtgcc catagacaag 11520

gaggtgaaga tcgacgggtt ttacatgcgc atgaccctga aagtgctgac cctgagcgac 11580

gatctggggg tgtaccgcaa cgacaggatg caccgtgcgg tgagcgccag caggcggcgc 11640

gagctgagcg accaggagct gatgcatagt ctgcagcggg ccctgaccgg ggccgggacc 11700

gaggggggaga gctactttga catgggcgcg gacctgcact ggcagcccag ccgccgggcc 11760

ttggaggcgg cggcaggacc ctacgtagaa gaggtggacg atgaggtgga cgaggagggc 11820

gagtacctgg aagactgatg gcgcgaccgt atttttgcta gatgcaacaa caacagccac 11880

ctcctgatcc cgcgatgcgg gcggcgctgc agagccagcc gtccggcatt aactcctcgg 11940

acgattggac ccaggccatg caacgcatca tggcgctgac gacccgcaac cccgaagcct 12000

ttagacagca gccccaggcc aaccggctct cggccatcct ggaggccgtg gtgccctcgc 12060

gctccaaccc cacgcacgag aaggtcctgg ccatcgtgaa cgcgctggtg gagaacaagg 12120

ccatccgcgg cgacgaggcc ggcctggtgt acaacgcgct gctggagcgc gtggcccgct 12180

acaacagcac caacgtgcag accaacctgg accgcatggt gaccgacgtg cgcgaggccg 12240

tggcccagcg cgagcggttc caccgcgagt ccaacctggg atccatggtg gcgctgaacg 12300

ccttcctcag cacccagccc gccaacgtgc cccggggcca ggaggactac accaacttca 12360

tcagcgccct gcgcctgatg gtgaccgagg tgccccagag cgaggtgtac cagtccgggc 12420

cggactactt cttccagacc agtcgccagg gcttgcagac cgtgaacctg agccaggctt 12480

tcaagaactt gcagggcctg tggggcgtgc aggccccggt cggggaccgc gcgacggtgt 12540

cgagcctgct gacgccgaac tcgcgcctgc tgctgctgct ggtggccccc ttcacggaca 12600

gcggcagcat caaccgcaac tcgtacctgg gctacctgat taacctgtac cgcgaggcca 12660

tcggccaggc gcacgtggac gagcagacct accaggagat cacccacgtg agccgcgccc 12720

tgggccagga cgacccgggc aacctggaag ccaccctgaa ctttttgctg accaaccggt 12780

cgcagaagat cccgccccag tacgcgctca gcaccgagga ggagcgcatc ctgcgttacg 12840

tgcagcagag cgtgggcctg ttcctgatgc aggagggggc cacccccagc gccgcgctcg 12900

acatgaccgc gcgcaacatg gagcccagca tgtacgccag caaccgcccg ttcatcaata 12960

aactgatgga ctacttgcat cgggcggccg ccatgaactc tgactatttc accaacgcca 13020

tcctgaatcc ccactggctc ccgccgccgg ggttctacac gggcgagtac gacatgcccg 13080

accccaatga cgggttcctg tgggacgatg tggacagcag cgtgttctcc ccccgaccgg 13140

gtgctaacga gcgccccttg tggaagaagg aaggcagcga ccgacgcccg tcctcggcgc 13200

tgtccggccg cgagggtgct gccgcggcgg tgcccgaggc cgccagtcct ttcccgagct 13260

tgcccttctc gctgaacagt atccgcagca gcgagctggg caggatcacg cgcccgcgct 13320

tgctgggcga agaggagtac ttgaatgact cgctgttgag acccgagcgg gagaagaact 13380

tccccaataa cgggatagaa agcctggtgg acaagatgag ccgctggaag acgtatgcgc 13440

aggagcacag ggacgatccc cgggcgtcgc agggggccac gagccggggc agcgccgccc 13500

gtaaacgccg gtggcacgac aggcagcggg gacagatgtg ggacgatgag gactccgccg 13560

acgacagcag cgtgttggac ttgggtggga gtggtaaccc gttcgctcac ctgcgccccc 13620

gtatcgggcg catgatgtaa gagaaaccga aaataaatga tactcaccaa ggccatggcg 13680

accagcgtgc gttcgtttct tctctgttgt tgttgtatct agtatgatga ggcgtgcgta 13740

cccggagggt cctcctccct cgtacgagag cgtgatgcag caggcgatgg cggcggcggc 13800

gatgcagccc ccgctggagg ctccttacgt gcccccgcgg tacctggcgc ctacggaggg 13860

gcggaacagc attcgttact cggagctggc acccttgtac gataccaccc ggttgtacct 13920

ggtggacaac aagtcggcgg acatcgcctc gctgaactac cagaacgacc acagcaactt 13980

cctgaccacc gtggtgcaga acaatgactt caccccacg gaggccagca cccagaccat 14040

caactttgac gagcgctcgc ggtggggcgg ccagctgaaa accatcatgc acaccaacat 14100

gcccaacgtg aacgagttca tgtacagcaa caagttcaag gcgcgggtga tggtctcccg 14160

caagaccccc aatggggtga cagtgacaga ggattatgat ggtagtcagg atgagctgaa 14220

gtatgaatgg gtggaatttg agctgcccga aggcaacttc tcggtgacca tgaccatcga 14280

cctgatgaac aacgccatca tcgacaatta cttggcggtg gggcggcaga acggggtgct 14340

ggagagcgac atcggcgtga agttcgacac taggaacttc aggctgggct gggaccccgt 14400

gaccgagctg gtcatgcccg gggtgtacac caacgaggct ttccatcccg atattgtctt 14460

gctgcccggc tgcggggtgg acttcaccga gagccgcctc agcaacctgc tgggcattcg 14520

caagaggcag cccttccagg aaggcttcca gatcatgtac gaggatctgg agggggggcaa 14580

catccccgcg ctcctggatg tcgacgccta tgagaaaagc aaggaggatg cagcagctga 14640

agcaactgca gccgtagcta ccgcctctac cgaggtcagg ggcgataatt ttgcaagcgc 14700

cgcagcagtg gcagcggccg aggcggctga aaccgaaagt aagatagtca ttcagccggt 14760

ggagaaggat agcaagaaca ggagctacaa cgtactaccg gacaagataa acaccgccta 14820

ccgcagctgg tacctagcct acaactatgg cgaccccgag aagggcgtgc gctcctggac 14880

gctgctcacc acctcggacg tcacctgcgg cgtggagcaa gtctactggt cgctgcccga 14940

catgatgcaa gacccggtca ccttccgctc cacgcgtcaa gttagcaact acccggtggt 15000

gggcgccgag ctcctgcccg tctactccaa gagcttcttc aacgagcagg ccgtctactc 15060

gcagcagctg cgcgccttca cctcgcttac gcacgtcttc aaccgcttcc ccgagaacca 15120

gatcctcgtc cgcccgcccg cgcccaccat taccaccgtc agtgaaaacg ttcctgctct 15180

cacagatcac gggaccctgc cgctgcgcag cagtatccgg ggagtccagc gcgtgaccgt 15240

tactgacgcc agacgccgca cctgccccta cgtctacaag gccctgggca tagtcgcgcc 15300

gcgcgtcctc tcgagccgca ccttctaaat gtccattctc atctcgccca gtaataacac 15360

cggttggggc ctgcgcgcgc ccagcaagat gtacggaggc gctcgccaac gctccacgca 15420

acaccccgtg cgcgtgcgcg ggcacttccg cgctccctgg ggcgccctca agggccgcgt 15480

gcggtcgcgc accaccgtcg acgacgtgat cgaccaggtg gtggccgacg cgcgcaacta 15540

caccccgcc gccgcgcccg tctccaccgt ggacgccgtc atcgacagcg tggtggccga 15600

cgcgcgccgg tacgcccgcg ccaagagccg gcggcggcgc atcgcccggc ggcaccggag 15660

caccccgcc atgcgcgcgg cgcgagcctt gctgcgcagg gccaggcgca cgggacgcag 15720

ggccatgctc agggcggcca gacgcgcggc ttcaggcgcc agcgccggca ggacccggag 15780

acgcgcggcc acggcggcgg cagcggccat cgccagcatg tcccgcccgc ggcgagggaa 15840

cgtgtactgg gtgcgcgacg ccgccaccgg tgtgcgcgtg cccgtgcgca cccgcccccc 15900

tcgcacttga agatgttcac ttcgcgatgt tgatgtgtcc cagcggcgag gaggatgtcc 15960

aagcgcaaat tcaaggaaga gatgctccag gtcatcgcgc ctgagatcta cggccctgcg 16020

gtggtgaagg aggaaagaaa gccccgcaaa atcaagcggg tcaaaaagga caaaaaggaa 16080

gaagaaagtg atgtggacgg attggtggag tttgtgcgcg agttcgcccc ccggcggcgc 16140

gtgcagtggc gcgggcggaa ggtgcaaccg gtgctgagac ccggcaccac cgtggtcttc 16200

acgcccggcg agcgctccgg caccgcttcc aagcgctcct acgacgaggt gtacggggat 16260

gatgatattc tggagcaggc ggccgagcgc ctgggcgagt ttgcttacgg caagcgcagc 16320

cgttccgcac cgaaggaaga ggcggtgtcc atcccgctgg accacggcaa ccccacgccg 16380

agcctcaagc ccgtgacctt gcagcaggtg ctgccgaccg cggcgccgcg ccgggggttc 16440

aagcgcgagg gcgaggatct gtaccccacc atgcagctga tggtgcccaa gcgccagaag 16500

ctggaagacg tgctggagac catgaaggtg gacccggacg tgcagcccga ggtcaaggtg 16560

cggcccatca agcaggtggc cccgggcctg ggcgtgcaga ccgtggacat caagattccc 16620

acggagccca tggaaacgca gaccgagccc atgatcaagc ccagcaccag caccatggag 16680

gtgcagacgg atccctggat gccatcggct cctagtcgaa gaccccggcg caagtacggc 16740

gcggccagcc tgctgatgcc caactacgcg ctgcatcctt ccatcatccc cacgccgggc 16800

taccgcggca cgcgcttcta ccgcggtcat accagcagcc gccgccgcaa gaccaccact 16860

cgccgccgcc gtcgccgcac cgccgctgca accacccctg ccgccctggt gcggagagtg 16920

taccgccgcg gccgcgcacc tctgaccctg ccgcgcgcgc gctaccaccc gagcatcgcc 16980

atttaaactt tcgcctgctt tgcagatcaa tggccctcac atgccgcctt cgcgttccca 17040

ttacgggcta ccgaggaaga aaaccgcgcc gtagaaggct ggcggggaac gggatgcgtc 17100

gccaccacca ccggcggcgg cgcgccatca gcaagcggtt gggggggaggc ttcctgcccg 17160

cgctgatccc catcatcgcc gcggcgatcg gggcgatccc cggcattgct tccgtggcgg 17220

tgcaggcctc tcagcgccac tgagacacac ttggaaacat cttgtaataa accaatggac 17280

tctgacgctc ctggtcctgt gatgtgtttt cgtagacaga tggaagacat caatttttcg 17340

tccctggctc cgcgacacgg cacgcggccg ttcatgggca cctggagcga catcggcacc 17400

agccaactga acgggggcgc cttcaattgg agcagtctct ggagcgggct taagaatttc 17460

gggtccacgc ttaaaaccta tggcagcaag gcgtggaaca gcaccacagg gcaggcgctg 17520

agggataagc tgaaagagca gaacttccag cagaaggtgg tcgatgggct cgcctcgggc 17580

atcaacgggg tggtggacct ggccaaccag gccgtgcagc ggcagatcaa cagccgcctg 17640

gacccggtgc cgcccgccgg ctccgtggag atgccgcagg tggaggagga gctgcctccc 17700

ctggacaagc ggggcgagaa gcgaccccgc cccgatgcgg aggagacgct gctgacgcac 17760

acggacgagc cgcccccgta cgaggaggcg gtgaaactgg gtctgcccac cacgcggccc 17820

atcgcgcccc tggccaccgg ggtgctgaaa cccgaaaagc ccgcgaccct ggacttgcct 17880

cctccccagc cttcccgccc ctctacagtg gctaagcccc tgccgccggt ggccgtggcc 17940

cgcgcgcgac ccgggggcac cgcccgccct catgcgaact ggcagagcac tctgaacagc 18000

atcgtgggtc tgggagtgca gagtgtgaag cgccgccgct gctattaaac ctaccgtagc 18060

gcttaacttg cttgtctgtg tgtgtatgta ttatgtcgcc gccgccgctg tccaccagaa 18120

ggaggagtga agaggcgcgt cgccgagttg caagatggcc accccatcga tgctgcccca 18180

gtgggcgtac atgcacatcg ccggacagga cgcttcggag tacctgagtc cgggtctggt 18240

gcagtttgcc cgcgccacag acacctactt cagtctgggg aacaagttta ggaaccccac 18300

ggtggcgccc acgcacgatg tgaccaccga ccgcagccag cggctgacgc tgcgcttcgt 18360

gcccgtggac cgcgaggaca acacctactc gtacaaagtg cgctacacgc tggccgtggg 18420

cgacaaccgc gtgctggaca tggccagcac ctactttgac atccgcggcg tgctggatcg 18480

gggccctagc ttcaaaccct actccggcac cgcctacaac agtctggccc ccaagggagc 18540

acccaacact tgtcagtgga catataaagc cgatggtgaa actgccacag aaaaaaccta 18600

tacatatgga aatgcacccg tgcagggcat taacatcaca aaagatggta ttcaacttgg 18660

aactgacacc gatgatcagc caatctacgc agataaaacc tatcagcctg aacctcaagt 18720

gggtgatgct gaatggcatg acatcactgg tactgatgaa aagtatggag gcagagctct 18780

taagcctgat accaaaatga agccttgtta tggttctttt gccaagccta ctaataaaga 18840

aggaggtcag gcaaatgtga aaacaggaac aggcactact aaagaatatg acatagacat 18900

ggctttcttt gacaacagaa gtgcggctgc tgctggccta gctccagaaa ttgttttgta 18960

tactgaaaat gtggatttgg aaactccaga tacccatatt gtatacaaag caggcacaga 19020

tgacagcagc tcttctatta atttgggtca gcaagccatg cccaacagac ctaactacat 19080

tggtttcaga gacaacttta tcgggctcat gtactacaac agcactggca atatgggggt 19140

gctggccggt caggcttctc agctgaatgc tgtggttgac ttgcaagaca gaaacaccga 19200

gctgtcctac cagctcttgc ttgactctct gggtgacaga acccggtatt tcagtatgtg 19260

gaatcaggcg gtggacagct atgatcctga tgtgcgcatt attgaaaatc atggtgtgga 19320

ggatgaactt cccaactatt gtttccctct ggatgctgtt ggcagaacag atacttatca 19380

gggaattaag gctaatggaa ctgatcaaac cacatggacc aaagatgaca gtgtcaatga 19440

tgctaatgag ataggcaagg gtaatccatt cgccatggaa atcaacatcc aagccaacct 19500

gtggaggaac ttcctctacg ccaacgtggc cctgtacctg cccgactctt acaagtacac 19560

gccggccaat gttaccctgc ccaccaacac caacacctac gattacatga acggccgggt 19620

ggtggcgccc tcgctggtgg actcctacat caacatcggg gcgcgctggt cgctggatcc 19680

catggacaac gtgaacccct tcaaccacca ccgcaatgcg gggctgcgct accgctccat 19740

gctcctgggc aacgggcgct acgtgccctt ccacatccag gtgccccaga aatttttcgc 19800

catcaagagc ctcctgctcc tgcccgggtc ctacacctac gagtggaact tccgcaagga 19860

cgtcaacatg atcctgcaga gctccctcgg caacgacctg cgcacggacg gggcctccat 19920

ctccttcacc agcatcaacc tctacgccac cttcttcccc atggcgcaca acacggcctc 19980

cacgctcgag gccatgctgc gcaacgacac caacgaccag tccttcaacg actacctctc 20040

ggcggccaac atgctctacc ccatcccggc caacgccacc aacgtgccca tctccatccc 20100

ctcgcgcaac tgggccgcct tccgcggctg gtccttcacg cgtctcaaga ccaaggagac 20160

gccctcgctg ggctccgggt tcgaccccta cttcgtctac tcgggctcca tcccctacct 20220

cgacggcacc ttctacctca accacacctt caagaaggtc tccatcacct tcgactcctc 20280

cgtcagctgg cccggcaacg accggctcct gacgcccaac gagttcgaaa tcaagcgcac 20340

cgtcgacggc gagggctaca acgtggccca gtgcaacatg accaaggact ggttcctggt 20400

ccagatgctg gcccactaca acatcggcta ccagggcttc tacgtgcccg agggctacaa 20460

ggaccgcatg tactccttct tccgcaactt ccagcccatg agccgccagg tggtggacga 20520

ggtcaactac aaggactacc aggccgtcac cctggcctac cagcacaaca actcgggctt 20580

cgtcggctac ctcgcgccca ccatgcgcca gggccagccc taccccgcca actaccccta 20640

cccgctcatc ggcaagagcg ccgtcaccag cgtcacccag aaaaagttcc tctgcgacag 20700

ggtcatgtgg cgcatcccct tctccagcaa cttcatgtcc atgggcgcgc tcaccgacct 20760

cggccagaac atgctctatg ccaactccgc ccacgcgcta gacatgaatt tcgaagtcga 20820

ccccatggat gagtccaccc ttctctatgt tgtcttcgaa gtcttcgacg tcgtccgagt 20880

gcaccagccc caccgcggcg tcatcgaggc cgtctacctg cgcaccccct tctcggccgg 20940

taacgccacc acctaagctc ttgcttcttg caagccatgg ccgcgggctc cggcgagcag 21000

gagctcaggg ccatcatccg cgacctgggc tgcgggccct acttcctggg caccttcgat 21060

aagcgcttcc cgggattcat ggccccgcac aagctggcct gcgccatcgt caacacggcc 21120

ggccgcgaga ccgggggcga gcactggctg gccttcgcct ggaacccgcg ctcgaacacc 21180

tgctacctct tcgacccctt cgggttctcg gacgagcgcc tcaagcagat ctaccagttc 21240

gagtacgagg gcctgctgcg ccgcagcgcc ctggccaccg aggaccgctg cgtcaccctg 21300

gaaaagtcca cccagaccgt gcagggtccg cgctcggccg cctgcgggct cttctgctgc 21360

atgttcctgc acgccttcgt gcactggccc gaccgcccca tggacaagaa ccccaccatg 21420

aacttgctga cgggggtgcc caacggcatg ctccagtcgc cccaggtgga acccaccctg 21480

cgccgcaacc aggaggcgct ctaccgcttc ctcaactccc actccgccta ctttcgctcc 21540

caccgcgcgc gcatcgagaa ggccaccgcc ttcgaccgca tgaatcaaga catgtaaacc 21600

gtgtgtgtat gttaaatgtc tttaataaac agcactttca tgttacacat gcatctgaga 21660

tgatttattt agaaatcgaa agggttctgc cgggtctcgg catggcccgc gggcagggac 21720

acgttgcgga actggtactt ggccagccac ttgaactcgg ggatcagcag tttgggcagc 21780

ggggtgtcgg ggaaggagtc ggtccacagc ttccgcgtca gttgcagggc gcccagcagg 21840

tcgggcgcgg agatcttgaa atcgcagttg ggacccgcgt tctgcgcgcg ggagttgcgg 21900

tacacggggt tgcagcactg gaacaccatc agggccgggt gcttcacgct cgccagcacc 21960

gtcgcgtcgg tgatgctctc cacgtcgagg tcctcggcgt tggccatccc gaaggggtc 22020

atcttgcagg tctgccttcc catggtgggc acgcacccgg gcttgtggtt gcaatcgcag 22080

tgcaggggga tcagcatcat ctgggcctgg tcggcgttca tccccgggta catggccttc 22140

atgaaagcct ccaattgcct gaacgcctgc tgggccttgg ctccctcggt gaagaagacc 22200

ccgcaggact tgctagagaa ctggttggtg gcgcacccgg cgtcgtgcac gcagcagcgc 22260

gcgtcgttgt tggccagctg caccacgctg cgcccccagc ggttctgggt gatcttggcc 22320

cggtcggggt tctccttcag cgcgcgctgc ccgttctcgc tcgccacatc catctcgatc 22380

atgtgctcct tctggatcat ggtggtcccg tgcaggcacc gcagcttgcc ctcggcctcg 22440

gtgcacccgt gcagccacag cgcgcacccg gtgcactccc agttcttgtg ggcgatctgg 22500

gaatgcgcgt gcacgaagcc ctgcaggaag cggcccatca tggtggtcag ggtcttgttg 22560

ctagtgaagg tcagcggaat gccgcggtgc tcctcgttga tgtacaggtg gcagatgcgg 22620

cggtacacct cgccctgctc gggcatcagc tggaagttgg ctttcaggtc ggtctccacg 22680

cggtagcggt ccatcagcat agtcatgatt tccataccct tctcccaggc cgagacgatg 22740

ggcaggctca tagggttctt caccatcatc ttagcgctag cagccgcggc caggggggtcg 22800

ctctcgtcca gggtctcaaa gctccgcttg ccgtccttct cggtgatccg caccgggggg 22860

tagctgaagc ccacggccgc cagctcctcc tcggcctgtc tttcgtcctc gctgtcctgg 22920

ctgacgtcct gcaggaccac atgcttggtc ttgcggggtt tcttcttggg cggcagcggc 22980

ggcggagatg ttggagatgg cgaggggggag cgcgagttct cgctcaccac tactatctct 23040

tcctcttctt ggtccgaggc cacgcggcgg taggtatgtc tcttcggggg cagaggcgga 23100

ggcgacgggc tctcgccgcc gcgacttggc ggatggctgg cagagcccct tccgcgttcg 23160

ggggtgcgct cccggcggcg ctctgactga cttcctccgc ggccggccat tgtgttctcc 23220

tagggaggaa caacaagcat ggagactcag ccatcgccaa cctcgccatc tgcccccacc 23280

gccgacgaga agcagcagca gcagaatgaa agcttaaccg ccccgccgcc cagccccgcc 23340

acctccgacg cggccgtccc agacatgcaa gagatggagg aatccatcga gattgacctg 23400

ggctatgtga cgcccgcgga gcacgaggag gagctggcag tgcgcttttc acaagaagag 23460

atacaccaag aacagccaga gcaggaagca gagaatgagc agagtcaggc tgggctcgag 23520

catgacggcg actacctcca cctgagcggg ggggaggacg cgctcatcaa gcatctggcc 23580

cggcaggcca ccatcgtcaa ggatgcgctg ctcgaccgca ccgaggtgcc cctcagcgtg 23640

gaggagctca gccgcgccta cgagttgaac ctcttctcgc cgcgcgtgcc ccccaagcgc 23700

cagcccaatg gcacctgcga gcccaacccg cgcctcaact tctacccggt cttcgcggtg 23760

cccgaggccc tggccaccta ccacatcttt ttcaagaacc aaaagatccc cgtctcctgc 23820

cgcgccaacc gcacccgcgc cgacgccctt ttcaacctgg gtcccggcgc ccgcctacct 23880

gatatcgcct ccttggaaga ggttcccaag atcttcgagg gtctgggcag cgacgagact 23940

cgggccgcga acgctctgca aggagaagga ggagagcatg agcaccacag cgccctggtc 24000

gagttggaag gcgacaacgc gcggctggcg gtgctcaaac gcacggtcga gctgacccat 24060

ttcgcctacc cggctctgaa cctgcccccc aaagtcatga gcgcggtcat ggaccaggtg 24120

ctcatcaagc gcgcgtcgcc catctccgag gacgagggca tgcaagactc cgaggagggc 24180

aagcccgtgg tcagcgacga gcagctggcc cggtggctgg gtcctaatgc tagtccccag 24240

agtttggaag agcggcgcaa actcatgatg gccgtggtcc tggtgaccgt ggagctggag 24300

tgcctgcgcc gcttcttcgc cgacgcggag accctgcgca aggtcgagga gaacctgcac 24360

tacctcttca ggcacgggtt cgtgcgccag gcctgcaaga tctccaacgt ggagctgacc 24420

aacctggtct cctacatggg catcttgcac gagaaccgcc tggggcagaa cgtgctgcac 24480

accaccctgc gcggggaggc ccggcgcgac tacatccgcg actgcgtcta cctctacctc 24540

tgccacacct ggcagacggg catgggcgtg tggcagcagt gtctggagga gcagaacctg 24600

aaagagctct gcaagctcct gcagaagaac ctcaagggtc tgtggaccgg gttcgacgag 24660

cgcaccaccg cctcggacct ggccgacctc attttccccg agcgcctcag gctgacgctg 24720

cgcaacggcc tgcccgactt tatgagccaa agcatgttgc aaaactttcg ctctttcatc 24780

ctcgaacgct ccggaatcct gcccgccacc tgctccgcgc tgccctcgga cttcgtgccg 24840

ctgaccttcc gcgagtgccc cccgccgctg tggagccact gctacctgct gcgcctggcc 24900

aactacctgg cctaccactc ggacgtgatc gaggacgtca gcggcgaggg cctgctcgag 24960

tgccactgcc gctgcaacct ctgcacgccg caccgctccc tggcctgcaa cccccagctg 25020

ctgagcgaga cccagatcat cggcaccttc gagttgcaag ggcccagcga aggcgagggt 25080

tcagccgcca agggggggtct gaaactcacc ccggggctgt ggacctcggc ctacttgcgc 25140

aagttcgtgc ccgaggacta ccatcccttc gagatcaggt tctacgagga ccaatcccat 25200

ccgcccaagg ccgagctgtc ggcctgcgtc atcacccagg gggcgatcct ggcccaattg 25260

caagccatcc agaaatcccg ccaagaattc ttgctgaaaa agggccgcgg ggtctacctc 25320

gacccccaga ccggtgagga gctcaacccc ggcttccccc aggatgcccc gaggaaacaa 25380

gaagctgaaa gtggagctgc cgcccgtgga ggatttggag gaagactggg agaacagcag 25440

tcaggcagag gaggaggaga tggaggaaga ctgggacagc actcaggcag aggaggacag 25500

cctgcaagac agtctggagg aagacgagga ggaggcagag gaggaggtgg aagaagcagc 25560

cgccgccaga ccgtcgtcct cggcgggga gaaagcaagc agcacggata ccatctccgc 25620

tccgggtcgg ggtcccgctc gaccacacag tagatgggac gagaccggac gattcccgaa 25680

ccccaccacc cagaccggta agaaggagcg gcagggatac aagtcctggc gggggcacaa 25740

aaacgccatc gtctcctgct tgcaggcctg cgggggcaac atctccttca cccggcgcta 25800

cctgctcttc caccgcgggg tgaactttcc ccgcaacatc ttgcattact accgtcacct 25860

ccacagcccc tactacttcc aagaagaggc agcagcagca gaaaaagacc agcagaaaac 25920

cagcagctag aaaatccaca gcggcggcag caggtggact gaggatcgcg gcgaacgagc 25980

cggcgcaaac ccgggagctg aggaaccgga tctttcccac cctctatgcc atcttccagc 26040

agagtcgggg gcaggagcag gaactgaaag tcaagaaccg ttctctgcgc tcgctcaccc 26100

gcagttgtct gtatcacaag agcgaagacc aacttcagcg cactctcgag gacgccgagg 26160

ctctcttcaa caagtactgc gcgctcactc ttaaagagta gcccgcgccc gcccagtcgc 26220

agaaaaaggc gggaattacg tcacctgtgc ccttcgccct agccgcctcc acccatcatc 26280

atgagcaaag agattcccac gccttacatg tggagctacc agccccagat gggcctggcc 26340

gccggtgccg cccaggacta ctccacccgc atgaattggc tcagcgccgg gcccgcgatg 26400

atctcacggg tgaatgacat ccgcgcccac cgaaaccaga tactcctaga acagtcagcg 26460

ctcaccgcca cgccccgcaa tcacctcaat ccgcgtaatt ggcccgccgc cctggtgtac 26520

caggaaattc cccagcccac gaccgtacta cttccgcgag acgcccaggc cgaagtccag 26580

ctgactaact caggtgtcca gctggcgggc ggcgccaccc tgtgtcgtca ccgccccgct 26640

cagggtataa agcggctggt gatccggggc agaggcacac agctcaacga cgaggtggtg 26700

agctcttcgc tgggtctgcg acctgacgga gtcttccaac tcgccggatc ggggagatct 26760

tccttcacgc ctcgtcaggc cgtcctgact ttggagagtt cgtcctcgca gccccgctcg 26820

ggtggcatcg gcactctcca gttcgtggag gagttcactc cctcggtcta cttcaacccc 26880

ttctccggct cccccggcca ctacccggac gagttcatcc cgaacttcga cgccatcagc 26940

gagtcggtgg acggctacga ttgaaactaa tcacccccct atccagtgaa ataaagatca 27000

tattgatgat gattttacag aaataaaaaa taatcatttg atttgaaata aagatacaat 27060

catattgatg atttgagttt aacaaaaaaa taaagaatca cttacttgaa atctgatacc 27120

aggtctctgt ccatgttttc tgccaacacc acttcactcc cctcttccca gctctggtac 27180

tgcaggcccc ggcgggctgc aaacttcctc cacacgctga aggggatgtc aaattcctcc 27240

tgtccctcaa tcttcatttt atcttctatc agatgtccaa aaagcgcgtc cgggtggatg 27300

atgacttcga ccccgtctac ccctacgatg cagacaacgc accgaccgtg cccttcatca 27360

acccccccct cgtctcttca gatggattcc aagagaagcc cctgggggtg ttgtccctgc 27420

gactggccga ccccgtcacc accaagaacg gggaaatcac cctcaagctg ggagaggggg 27480

tggacctcga ttcctcggga aaactcatct ccaacacggc caccaaggcc gccgcccctc 27540

tcagtttttc caacaacacc atttccctta acatggatca ccccttttac actaaagatg 27600

gaaaattatc cttacaagtt tctccaccat taaatatact gagaacaagc attctaaaca 27660

cactagcttt aggttttgga tcaggtttag gactccgtgg ctctgccttg gcagtacagt 27720

tagtctctcc acttacattt gatactgatg gaaacataaa gcttaccttа gacagaggtt 27780

tgcatgttac aacaggagat gcaattgaaa gcaacataag ctgggctaaa ggtttaaaat 27840

ttgaagatgg agccatagca accaacattg gaaatgggtt agagtttgga agcagtagta 27900

cagaaacagg tgttgatgat gcttacccaa tccaagttaa acttggatct ggccttagct 27960

ttgacagtac aggagccata atggctggta acaaagaaga cgataaactc actttgtgga 28020

caacacctga tccatcacca aactgtcaaa tactcgcaga aaatgatgca aaactaacac 28080

tttgcttgac taaatgtggt agtcaaatac tggccactgt gtcagtctta gttgtaggaa 28140

gtggaaacct aaaccccatt actggcaccg taagcagtgc tcaggtgttt ctacgttttg 28200

atgcaaacgg tgttctttta acagaacatt ctacactaaa aaaatactgg gggtataggc 28260

agggagatag catagatggc actccatata ccaatgctgt aggattcatg cccaatttaa 28320

aagcttatcc aaagtcacaa agttctacta ctaaaaataa tatagtaggg caagtataca 28380

tgaatggaga tgtttcaaaa cctatgcttc tcactataac cctcaatggt actgatgaca 28440

gcaacagtac atattcaatg tcattttcat acacctggac taatggaagc tatgttggag 28500

caacatttgg ggctaactct tataccttct catacatcgc ccaagaatga acactgtatc 28560

ccaccctgca tgccaaccct tcccacccca ctctgtggaa caaactctga aacacaaaat 28620

aaaataaagt tcaagtgttt tattgattca acagttttac aggattcgag cagttatttt 28680

tcctccaccc tcccaggaca tggaatacac caccctctcc ccccgcacag ccttgaacat 28740

ctgaatgcca ttggtgatgg acatgctttt ggtctccacg ttccacacag tttcagagcg 28800

agccagtctc gggtcggtca gggagatgaa accctccggg cactcccgca tctgcacctc 28860

acagctcaac agctgaggat tgtcctcggt ggtcgggatc acggttatct ggaagaagca 28920

gaagagcggc ggtgggaatc atagtccgcg aacgggatcg gccggtggtg tcgcatcagg 28980

ccccgcagca gtcgctgccg ccgccgctcc gtcaagctgc tgctcagggg gtccgggtcc 29040

agggactccc tcagcatgat gcccacggcc ctcagcatca gtcgtctggt gcggcgggcg 29100

cagcagcgca tgcggatctc gctcaggtcg ctgcagtacg tgcaacacag aaccaccagg 29160

ttgttcaaca gtccatagtt caacacgctc cagccgaaac tcatcgcggg aaggatgcta 29220

cccacgtggc cgtcgtacca gatcctcagg taaatcaagt ggtgcccccc ccagaacacg 29280

ctgcccacgt acatgatctc cttgggcatg tggcggttca ccacctcccg gtaccacatc 29340

accctctggt tgaacatgca gccccggatg atcctgcgga accacagggc cagcaccgcc 29400

ccgcccgcca tgcagcgaag agaccccggg tcccggcaat ggcaatggag gacccaccgc 29460

tcgtacccgt ggatcatctg ggagctgaac aagtctatgt tggcacagca caggcatatg 29520

ctcatgcatc tcttcagcac tctcaactcc tcgggggtca aaaccatatc ccagggcacg 29580

gggaactctt gcaggacagc gaaccccgca gaacagggca atcctcgcac agaacttaca 29640

ttgtgcatgg acagggtatc gcaatcaggc agcaccgggt gatcctccac cagagaagcg 29700

cgggtctcgg tctcctcaca gcgtggtaag ggggccggcc gatacgggtg atggcgggac 29760

gcggctgatc gtgttcgcga ccgtgtcatg atgcagttgc tttcggacat tttcgtactt 29820

gctgtagcag aacctggtcc gggcgctgca caccgatcgc cggcggcggt ctcggcgctt 29880

ggaacgctcg gtgttgaaat tgtaaaacag ccactctctc agaccgtgca gcagatctag 29940

ggcctcagga gtgatgaaga tcccatcatg cctgatggct ctgatcacat cgaccaccgt 30000

ggaatgggcc agacccagcc agatgatgca attttgttgg gtttcggtga cggcgagcct 30060

cgggaacaac gatgaagtaa atgcaagcgg tgcgttccag catggttagt tagctgatct 30120

gtagaaaaaa caaaaatgaa cattaaacca tgctagcctg gcgaacaggt gggtaaatcg 30180

ttctctccag caccaggcag gccacggggt ctccggcgcg accctcgtaa aaattgtcgc 30240

tatgattgaa aaccatcaca gagagacgtt cccggtggcc ggcgtgaatg attcgacaag 30300

atgaatacac ccccggaaca ttggcgtccg cgagtgaaaa aaagcgcccg aggaagcaat 30360

aaggcactac aatgctcagt ctcaagtcca gcaaagcgat gccatgcgga tgaagcacaa 30420

aattctcagg tgcgtacaaa atgtaattac tcccctcctg cacaggcagc aaagcccccg 30480

atccctccag gtacacatac aaagcctcag cgtccatagc ttaccgagca gcagcacaca 30540

acaggcgcaa gagtcagaga aaggctgagc tctaacctgt ccacccgctc tctgctcaat 30600

atatagccca gatctacact gacgtaaagg ccaaagtcta aaaatacccg ccaaataatc 30660

acacacgccc agcacacgcc cagaaaccgg tgacacactc aaaaaaatac gcgcacttcc 30720

tcaaacgccc aaaactgccg tcatttccgg gttcccacgc tacgtcatca aaacacgact 30780

ttcaaattcc gtcgaccgtt aaaaacgtca cccgccccgc ccctaacggt cgcccgtctc 30840

tcagccaatc agcgccccgc atccccaaat tcaaacacct catttgcata ttaacgcgca 30900

caaaaagttt gaggtatatt attgatgatg 30930

<210> 72
<211> 8
<212> PRT
<213> Mus sp.

<400> 72
Ser Ile Ile Asn Phe Glu Lys Leu
1 5

<210> 73
<211> 9
<212> PRT
<213> Mus sp.

<400> 73
Ser Pro Ser Tyr Ala Tyr His Gln Phe
1 5

<210> 74
<211> 100
<212> PRT
<213> Artificial Sequence

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

<400> 74
Val Thr Asn Thr Glu Met Phe Val Thr Ala Pro Asp Asn Leu Gly Tyr
1 5 10 15

Met Tyr Glu Val Gln Trp Pro Gly Gln Thr Gln Pro Gln Ile Ala Asn
20 25 30

Cys Ser Val Tyr Asp Phe Phe Val Trp Leu His Tyr Tyr Ser Val Arg
35 40 45

Asp Thr Val Thr Asn Thr Glu Met Phe Val Thr Ala Pro Asp Asn Leu
50 55 60

Gly Tyr Met Tyr Glu Val Gln Trp Pro Gly Gln Thr Gln Pro Gln Ile
65 70 75 80

Ala Asn Cys Ser Val Tyr Asp Phe Phe Val Trp Leu His Tyr Tyr Ser
85 90 95

Val Arg Asp Thr
100

<210> 75
<211> 25
<212> PRT
<213> Mus sp.

<400> 75
Val Thr Asn Thr Glu Met Phe Val Thr Ala Pro Asp Asn Leu Gly Tyr
1   5   10   15

Met Tyr Glu Val Gln Trp Pro Gly Gln
            20   25

<210> 76
<211> 25
<212> PRT
<213> Mus sp.

<400> 76
Thr Gln Pro Gln Ile Ala Asn Cys Ser Val Tyr Asp Phe Phe Val Trp
1   5   10   15

Leu His Tyr Tyr Ser Val Arg Asp Thr
            20   25

<210> 77
<211> 10
<212> PRT
<213> Homo sapiens

<400> 77
Tyr Val Tyr Val Ala Asp Val Ala Ala Lys
1   5   10

<210> 78
<211> 9
<212> PRT
<213> Homo sapiens

<400> 78
Asn Leu Val Pro Met Val Ala Thr Val
1   5

<210> 79
<211> 9
<212> PRT
<213> Homo sapiens

<400> 79
Cys Leu Gly Gly Leu Leu Thr Met Val

1 5

<210> 80
<211> 9
<212> PRT
<213> Homo sapiens

<400> 80
Gly Ile Leu Gly Phe Val Phe Thr Leu
1 5

<210> 81
<211> 9
<212> PRT
<213> Homo sapiens

<400> 81
Leu Leu Phe Gly Tyr Pro Val Tyr Val
1 5

<210> 82
<211> 9
<212> PRT
<213> Homo sapiens

<400> 82
Gly Leu Cys Thr Leu Val Ala Met Leu
1 5

<210> 83
<211> 9
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown:
T2 epitope sequence

<400> 83
Trp Leu Ser Leu Leu Val Pro Phe Val
1 5

<210> 84
<211> 8
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown:
T2 epitope sequence

<400> 84

Phe Leu Leu Thr Arg Ile Cys Thr
1   5

<210> 85
<211> 8
<212> PRT
<213> Homo sapiens

<400> 85
Trp Gln Ala Gly Ile Leu Ala Arg
1   5

<210> 86
<211> 8
<212> PRT
<213> Homo sapiens

<400> 86
Gln Gly Gln Asn Leu Lys Tyr Gln
1   5

<210> 87
<211> 25
<212> PRT
<213> Homo sapiens

<400> 87
Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu Val Pro Met Val Ala Thr
1   5   10   15

Val Gln Gly Gln Asn Leu Lys Tyr Gln
            20   25

<210> 88
<211> 9
<212> PRT
<213> Homo sapiens

<400> 88
Asn Thr Asp Asn Asn Leu Ala Val Tyr
1   5

<210> 89
<211> 9
<212> PRT
<213> Homo sapiens

<400> 89
Glu Val Asp Pro Ile Gly His Val Tyr
1   5

<210> 90
<211> 9
<212> PRT
<213> Homo sapiens

<400> 90
Leu Leu Ala Ser Ser Ile Leu Cys Ala
1   5

<210> 91
<211> 10
<212> PRT
<213> Homo sapiens

<400> 91
Ala Ile Phe Pro Gly Ala Val Pro Ala Ala
1   5   10

<210> 92
<211> 9
<212> PRT
<213> Homo sapiens

<400> 92
Val Tyr Asp Leu Ser Arg Asp Ile Leu
1   5

<210> 93
<211> 10
<212> PRT
<213> Homo sapiens

<400> 93
Ala Ser Ser Leu Pro Thr Thr Met Asn Tyr
1   5   10

<210> 94
<211> 13
<212> PRT
<213> Homo sapiens

<400> 94
Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
1   5   10

<210> 95
<211> 14
<212> PRT
<213> Homo sapiens

<400> 95

Leu Pro Leu Lys Met Leu Asn Ile Pro Ser Ile Asn Val His
1 5 10

<210> 96
<211> 15
<212> PRT
<213> Homo sapiens

<400> 96
Pro Glu Gln Trp Met Phe Gln Gly Ala Pro Pro Ser Gln Gly Thr
1 5 10 15

<210> 97
<211> 15
<212> PRT
<213> Homo sapiens

<400> 97
Glu His Pro Thr Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu
1 5 10 15

<210> 98
<211> 25
<212> PRT
<213> Homo sapiens

<400> 98
Pro Ile Leu Ser Pro Leu Thr Lys Gly Ile Leu Gly Phe Val Phe Thr
1 5 10 15

Leu Thr Val Pro Ser Glu Arg Gly Leu
20 25

<210> 99
<211> 25
<212> PRT
<213> Homo sapiens

<400> 99
His Phe Pro Gly Phe Gly Gln Ser Leu Leu Phe Gly Tyr Pro Val Tyr
1 5 10 15

Val Phe Gly Asp Cys Val Gln Gly Asp
20 25

<210> 100
<211> 25
<212> PRT
<213> Homo sapiens

<400> 100
Arg Met Gln Ala Ile Gln Asn Ala Gly Leu Cys Thr Leu Val Ala Met
1   5   10   15

Leu Glu Glu Thr Ile Phe Trp Leu Gln
            20   25

<210> 101
<211> 25
<212> PRT
<213> Homo sapiens

<400> 101
Arg Thr Tyr Gly Pro Val Phe Met Cys Leu Gly Gly Leu Leu Thr Met
1   5   10   15

Val Ala Gly Ala Val Trp Leu Thr Val
            20   25

<210> 102
<211> 25
<212> PRT
<213> Homo sapiens

<400> 102
Ser Ser Ser Gly Leu Ile Asn Ser Asn Thr Asp Asn Asn Leu Ala Val
1   5   10   15

Tyr Asp Leu Ser Arg Asp Ile Leu Asn
            20   25

<210> 103
<211> 25
<212> PRT
<213> Homo sapiens

<400> 103
Leu Val Phe Gly Ile Glu Leu Met Glu Val Asp Pro Ile Gly His Val
1   5   10   15

Tyr Ile Phe Ala Thr Cys Leu Gly Leu
            20   25

<210> 104
<211> 25
<212> PRT
<213> Homo sapiens

<400> 104

Met Asn Phe Tyr Leu Leu Leu Ala Ser Ser Ile Leu Cys Ala Leu Ile
1   5   10   15

Val Phe Trp Lys Tyr Arg Arg Phe Gln
            20   25

<210> 105
<211> 25
<212> PRT
<213> Homo sapiens

<400> 105
Ala Ala Ala Ala Ala Ala Ala Ala Ile Phe Pro Gly Ala Val Pro Ala
1   5   10   15

Ala Arg Pro Pro Tyr Pro Gly Ala Val
            20   25

<210> 106
<211> 25
<212> PRT
<213> Homo sapiens

<400> 106
Ser Asn Thr Asp Asn Asn Leu Ala Val Tyr Asp Leu Ser Arg Asp Ile
1   5   10   15

Leu Asn Asn Phe Pro His Ser Ile Ala
            20   25

<210> 107
<211> 25
<212> PRT
<213> Homo sapiens

<400> 107
Asp Pro Pro Gln Ser Pro Gln Gly Ala Ser Ser Leu Pro Thr Thr Met
1   5   10   15

Asn Tyr Pro Leu Trp Ser Gln Ser Tyr
            20   25

<210> 108
<211> 25
<212> PRT
<213> Homo sapiens

<400> 108
Ile Thr Tyr Gly Ala Cys Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys

1 5 10 15

Leu Ala Thr Gly Met Arg Asn Val Pro
20 25

<210> 109
<211> 25
<212> PRT
<213> Homo sapiens

<400> 109
Ser Ile Tyr Val Tyr Ala Leu Pro Leu Lys Met Leu Asn Ile Pro Ser
1 5 10 15

Ile Asn Val His His Tyr Pro Ser Ala
20 25

<210> 110
<211> 25
<212> PRT
<213> Homo sapiens

<400> 110
Glu Gly Pro Trp Val Pro Glu Gln Trp Met Phe Gln Gly Ala Pro Pro
1 5 10 15

Ser Gln Gly Thr Asp Val Val Gln His
20 25

<210> 111
<211> 25
<212> PRT
<213> Homo sapiens

<400> 111
Arg Gly Pro Gln Tyr Ser Glu His Pro Thr Phe Thr Ser Gln Tyr Arg
1 5 10 15

Ile Gln Gly Lys Leu Glu Tyr Arg His
20 25

<210> 112
<211> 9
<212> PRT
<213> Macaca mulatta

<400> 112
Cys Thr Pro Tyr Asp Ile Asn Gln Met
1 5

<210> 113
<211> 8
<212> PRT
<213> Macaca mulatta

<400> 113
Thr Thr Pro Glu Ser Ala Asn Leu
1   5

<210> 114
<211> 9
<212> PRT
<213> Macaca mulatta

<400> 114
Cys Ala Pro Pro Gly Tyr Ala Leu Leu
1   5

<210> 115
<211> 9
<212> PRT
<213> Macaca mulatta

<400> 115
Ser Gly Pro Lys Thr Asn Ile Ile Val
1   5

<210> 116
<211> 9
<212> PRT
<213> Macaca mulatta

<400> 116
Leu Ser Pro Arg Thr Leu Asn Ala Trp
1   5

<210> 117
<211> 9
<212> PRT
<213> Macaca mulatta

<400> 117
Thr Val Pro Trp Pro Asn Ala Ser Leu
1   5

<210> 118
<211> 15
<212> PRT
<213> Macaca mulatta

<400> 118
Pro Asn Gly Thr His Ser Trp Glu Tyr Trp Gly Ala Gln Leu Asn
1 5 10 15

<210> 119
<211> 13
<212> PRT
<213> Macaca mulatta

<400> 119
Tyr Lys Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val
1 5 10

<210> 120
<211> 15
<212> PRT
<213> Macaca mulatta

<400> 120
Thr Glu Glu Ala Lys Gln Ile Val Gln Arg His Leu Val Val Glu
1 5 10 15

<210> 121
<211> 13
<212> PRT
<213> Macaca fascicularis

<400> 121
Ala Gly Ser Leu Gln Gly Gln Trp Arg Gly Ala Ala Gly
1 5 10

<210> 122
<211> 16
<212> PRT
<213> Macaca fascicularis

<400> 122
Glu Ile Ser Thr Asn Ile Arg Gln Ala Gly Val Gln Tyr Ser Arg Ala
1 5 10 15

<210> 123
<211> 9
<212> PRT
<213> Macaca fascicularis

<400> 123
Arg Pro Lys Gln Ala Trp Cys Trp Phe
1 5

<210> 124
<211> 9

<212> PRT
<213> Macaca fascicularis

<400> 124
Arg Pro Lys Val Pro Leu Arg Thr Met
1 5

<210> 125
<211> 9
<212> PRT
<213> Macaca fascicularis

<400> 125
Gly Pro Arg Lys Pro Ile Lys Cys Trp
1 5

<210> 126
<211> 9
<212> PRT
<213> Macaca fascicularis

<400> 126
Leu Asn Met Ala Asp Lys Lys Glu Thr
1 5

<210> 127
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 127
Met Phe Gln Ala Leu Ser Glu Gly Cys Thr Pro Tyr Asp Ile Asn Gln
1 5 10 15

Met Leu Asn Val Leu Gly Asp His Gln
20 25

<210> 128
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 128
Ser Cys Ile Ser Glu Ala Asp Ala Thr Thr Pro Glu Ser Ala Asn Leu
1 5 10 15

Gly Glu Glu Ile Leu Ser Gln Leu Tyr
20 25

<210> 129

<211> 25
<212> PRT
<213> Macaca mulatta

<400> 129
Trp Asp Ala Ile Arg Phe Arg Tyr Cys Ala Pro Pro Gly Tyr Ala Leu
1   5   10   15

Leu Arg Cys Asn Asp Thr Asn Tyr Ser
            20   25

<210> 130
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 130
Ala Phe Leu Met Ala Leu Thr Asp Ser Gly Pro Lys Thr Asn Ile Ile
1   5   10   15

Val Asp Ser Gln Tyr Val Met Gly Ile
            20   25

<210> 131
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 131
Gly Asn Val Trp Val His Thr Pro Leu Ser Pro Arg Thr Leu Asn Ala
1   5   10   15

Trp Val Lys Ala Val Glu Glu Lys Lys
            20   25

<210> 132
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 132
Ala Phe Arg Gln Val Cys His Thr Thr Val Pro Trp Pro Asn Ala Ser
1   5   10   15

Leu Thr Pro Lys Trp Asn Asn Glu Thr
            20   25

<210> 133
<211> 25

<212> PRT
<213> Macaca mulatta

<400> 133
Val Phe Asn Phe Pro Pro Asn Gly Thr His Ser Trp Glu Tyr Trp Gly
1   5   10   15

Ala Gln Leu Asn Ala Met Lys Gly Asp
            20   25

<210> 134
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 134
Asn Trp Arg Ser Glu Leu Tyr Lys Tyr Lys Val Val Lys Ile Glu Pro
1   5   10   15

Leu Gly Val Ala Pro Thr Lys Ala Lys
            20   25

<210> 135
<211> 25
<212> PRT
<213> Macaca mulatta

<400> 135
Glu Lys Val Lys His Thr Glu Glu Ala Lys Gln Ile Val Gln Arg His
1   5   10   15

Leu Val Val Glu Thr Gly Thr Thr Glu
            20   25

<210> 136
<211> 25
<212> PRT
<213> Macaca fascicularis

<400> 136
Asp Gln Val Glu Ser Thr Ala Gly Ser Leu Gln Gly Gln Trp Arg Gly
1   5   10   15

Ala Ala Gly Thr Ala Ala Gln Ala Ala
            20   25

<210> 137
<211> 25
<212> PRT

<213> Macaca fascicularis

<400> 137
Gln Glu Leu Asp Glu Ile Ser Thr Asn Ile Arg Gln Ala Gly Val Gln
1   5   10   15

Tyr Ser Arg Ala Asp Glu Glu Gln Gln
            20   25

<210> 138
<211> 25
<212> PRT
<213> Macaca fascicularis

<400> 138
Phe His Ser Gln Pro Ile Asn Glu Arg Pro Lys Gln Ala Trp Cys Trp
1   5   10   15

Phe Gly Gly Ser Trp Lys Glu Ala Ile
            20   25

<210> 139
<211> 25
<212> PRT
<213> Macaca fascicularis

<400> 139
Asp Asp Ile Asp Glu Glu Asp Asp Asp Leu Val Gly Val Ser Val Arg
1   5   10   15

Pro Lys Val Pro Leu Arg Thr Met Ser
            20   25

<210> 140
<211> 25
<212> PRT
<213> Macaca fascicularis

<400> 140
Pro Phe Ala Ala Ala Gln Gln Arg Gly Pro Arg Lys Pro Ile Lys Cys
1   5   10   15

Trp Asn Cys Gly Lys Glu Gly His Ser
            20   25

<210> 141
<211> 25
<212> PRT
<213> Macaca fascicularis

<400> 141
Arg Arg Leu Thr Ala Arg Gly Leu Leu Asn Met Ala Asp Lys Lys Glu
1   5   10   15

Thr Arg Thr Pro Lys Lys Ala Lys Ala
            20   25

<210> 142
<211> 9
<212> PRT
<213> Mus sp.

<400> 142
Glu Gly Pro Arg Asn Gln Asp Trp Leu
1   5

<210> 143
<211> 9
<212> PRT
<213> Mus sp.

<400> 143
Thr Ala Pro Asp Asn Leu Gly Tyr Met
1   5

<210> 144
<211> 9
<212> PRT
<213> Mus sp.

<400> 144
Ser Val Tyr Asp Phe Phe Val Trp Leu
1   5

<210> 145
<211> 9
<212> PRT
<213> Mus sp.

<400> 145
Met Asn Lys Tyr Ala Tyr His Met Leu
1   5

<210> 146
<211> 8
<212> PRT
<213> Mus sp.

<400> 146
Ser Ile Ile Val Phe Asn Leu Leu

1 5

<210> 147
<211> 9
<212> PRT
<213> Mus sp.

<400> 147
Ala Ser Met Thr Asn Met Glu Leu Met
1 5

<210> 148
<211> 9
<212> PRT
<213> Mus sp.

<400> 148
Ala Gln Leu Ala Asn Asp Val Val Leu
1 5

<210> 149
<211> 9
<212> PRT
<213> Mus sp.

<400> 149
Leu Pro Tyr Leu Gly Trp Leu Val Phe
1 5

<210> 150
<211> 10
<212> PRT
<213> Mus sp.

<400> 150
Gly Tyr Cys Gly Leu Arg Gly Thr Gly Val
1 5 10

<210> 151
<211> 8
<212> PRT
<213> Mus sp.

<400> 151
Leu Ser Ile Phe Lys His Lys Leu
1 5

<210> 152
<211> 8
<212> PRT
<213> Mus sp.

<400> 152
Leu Ile Trp Ile Pro Ala Leu Leu
1   5

<210> 153
<211> 9
<212> PRT
<213> Mus sp.

<400> 153
Ser Ser Gly His Asn Glu Cys Pro Val
1   5

<210> 154
<211> 9
<212> PRT
<213> Mus sp.

<400> 154
Gly Gln Lys Met Asn Ala Gln Ala Ile
1   5

<210> 155
<211> 17
<212> PRT
<213> Mus sp.

<400> 155
Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn Glu Ala Gly
1   5   10   15

Arg

<210> 156
<211> 20
<212> PRT
<213> Mus sp.

<400> 156
Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile Glu Ala Ala Ala Ser
1   5   10   15

Ala Ile Gln Gly
            20

<210> 157
<211> 21
<212> PRT

<213> Mus sp.

<400> 157
Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys Val Ser
1   5   10   15

Ala Ser His Leu Glu
            20

<210> 158
<211> 15
<212> PRT
<213> Mus sp.

<400> 158
Asp Gly Ser Thr Asp Tyr Gly Ile Leu Gln Ile Asn Ser Arg Trp
1   5   10   15

<210> 159
<211> 21
<212> PRT
<213> Mus sp.

<400> 159
Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val His Leu
1   5   10   15

Tyr Arg Asn Gly Lys
            20

<210> 160
<211> 25
<212> PRT
<213> Mus sp.

<400> 160
Val Ser Gly Leu Glu Gln Leu Glu Ser Ile Ile Asn Phe Glu Lys Leu
1   5   10   15

Thr Glu Trp Thr Ser Ser Asn Val Met
            20   25

<210> 161
<211> 25
<212> PRT
<213> Mus sp.

<400> 161
Ala Leu Leu Ala Val Gly Ala Leu Glu Gly Pro Arg Asn Gln Asp Trp
1   5   10   15

Leu Gly Val Pro Arg Gln Leu Val Thr
20 25

<210> 162
<211> 25
<212> PRT
<213> Mus sp.

<400> 162
Leu Trp Pro Arg Val Thr Tyr His Ser Pro Ser Tyr Ala Tyr His Gln
1 5 10 15

Phe Glu Arg Arg Ala Lys Tyr Lys Arg
20 25

<210> 163
<211> 25
<212> PRT
<213> Mus sp.

<400> 163
Leu Trp Pro Arg Val Thr Tyr His Met Asn Lys Tyr Ala Tyr His Met
1 5 10 15

Leu Glu Arg Arg Ala Lys Tyr Lys Arg
20 25

<210> 164
<211> 25
<212> PRT
<213> Mus sp.

<400> 164
Gly Gln Ser Leu Val Ile Ser Ala Ser Ile Ile Val Phe Asn Leu Leu
1 5 10 15

Glu Leu Glu Gly Asp Tyr Arg Asp Asp
20 25

<210> 165
<211> 25
<212> PRT
<213> Mus sp.

<400> 165
Gly Ile Pro Val His Leu Glu Leu Ala Ser Met Thr Asn Met Glu Leu
1 5 10 15

Met Ser Ser Ile Val His Gln Gln Val
            20   25

<210> 166
<211> 25
<212> PRT
<213> Mus sp.

<400> 166
Arg Val Leu Glu Leu Phe Arg Ala Ala Gln Leu Ala Asn Asp Val Val
1   5   10   15

Leu Gln Ile Met Glu Leu Cys Gly Ala
            20   25

<210> 167
<211> 25
<212> PRT
<213> Mus sp.

<400> 167
His Arg Tyr Ser Leu Glu Glu Ile Leu Pro Tyr Leu Gly Trp Leu Val
1   5   10   15

Phe Ala Val Val Thr Thr Ser Phe Leu
            20   25

<210> 168
<211> 25
<212> PRT
<213> Mus sp.

<400> 168
Tyr Leu Ser Lys Asn Pro Asp Gly Tyr Cys Gly Leu Arg Gly Thr Gly
1   5   10   15

Val Ser Cys Pro Met Ala Ile Lys Lys
            20   25

<210> 169
<211> 25
<212> PRT
<213> Mus sp.

<400> 169
Asn Glu Ile Pro Phe Thr Tyr Glu Gln Leu Ser Ile Phe Lys His Lys
1   5   10   15

Leu Asp Lys Thr Tyr Pro Gln Gly Tyr
            20   25

<210> 170
<211> 25
<212> PRT
<213> Mus sp.

<400> 170
Ser Arg Ala Ser Leu Leu Gly Pro Gly Phe Val Leu Ile Trp Ile Pro
1   5   10   15

Ala Leu Leu Pro Ala Leu Arg Leu Ser
            20   25

<210> 171
<211> 25
<212> PRT
<213> Mus sp.

<400> 171
Asn Trp His Lys Gly Trp Asn Trp Ser Ser Gly His Asn Glu Cys Pro
1   5   10   15

Val Gly Ala Ser Cys His Pro Phe Thr
            20   25

<210> 172
<211> 25
<212> PRT
<213> Mus sp.

<400> 172
Lys Thr Leu Leu Lys Val Ser Lys Gly Gln Lys Met Asn Ala Gln Ala
1   5   10   15

Ile Ala Leu Val Ala Cys Tyr Leu Arg
            20   25

<210> 173
<211> 25
<212> PRT
<213> Mus sp.

<400> 173
Glu Ser Leu Lys Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile
1   5   10   15

Asn Glu Ala Gly Arg Glu Val Val Gly

20 25

<210> 174
<211> 25
<212> PRT
<213> Mus sp.

<400> 174
Met Thr Glu Gln Gln Trp Asn Phe Ala Gly Ile Glu Ala Ala Ala Ser
1 5 10 15

Ala Ile Gln Gly Asn Val Thr Ser Ile
20 25

<210> 175
<211> 25
<212> PRT
<213> Mus sp.

<400> 175
Asp Met Phe Asn Asn Phe Thr Val Ser Phe Trp Leu Arg Val Pro Lys
1 5 10 15

Val Ser Ala Ser His Leu Glu Gln Tyr
20 25

<210> 176
<211> 25
<212> PRT
<213> Mus sp.

<400> 176
Thr Asn Arg Asn Thr Asp Gly Ser Thr Asp Tyr Gly Ile Leu Gln Ile
1 5 10 15

Asn Ser Arg Trp Trp Cys Asn Asp Gly
20 25

<210> 177
<211> 25
<212> PRT
<213> Mus sp.

<400> 177
Thr Gly Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val
1 5 10 15

His Leu Tyr Arg Asn Gly Lys Asp Gln
20 25

<210> 178
<211> 20
<212> DNA
<213> Artificial Sequence

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

<400> 178
gtggtgtgca gcgagaatag 20

<210> 179
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 179
cgctcgttgt agatgtcgtt ag 22

<210> 180
<211> 15
<212> DNA
<213> Artificial Sequence

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

<400> 180
ttcatgcccg tgttg 15

<210> 181
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 181
gtttttgatc cagacccaga tg 22

<210> 182
<211> 21
<212> DNA

<213> Artificial Sequence

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

<400> 182
gcccattatt cagagcgagt a 21

<210> 183
<211> 14
<212> DNA
<213> Artificial Sequence

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

<400> 183
tcaccaggat ccac 14

<210> 184
<211> 17
<212> DNA
<213> Artificial Sequence

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

<400> 184
ccttgcacat gccggag 17

<210> 185
<211> 17
<212> DNA
<213> Artificial Sequence

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

<400> 185
acagagcctc gcctttg 17

<210> 186
<211> 12
<212> DNA
<213> Artificial Sequence

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

<400> 186
gtgagctggc gg 12

<210> 187
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 187
ctgaaagctc ggtttgctaa tg 22

<210> 188
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 188
ccatgctgga agagacaatc t 21

<210> 189
<211> 15
<212> DNA
<213> Artificial Sequence

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

<400> 189
tggcgctgac cgata 15

<210> 190
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 190
tatgcctatc ctgtctcctc tg 22

<210> 191
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 191
gctaatgcag ctaagtcctc tc 22

<210> 192
<211> 15
<212> DNA
<213> Artificial Sequence

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

<400> 192
tgaccgtgcc ttctg 15

<210> 193
<211> 9
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown:
AH1 epitope sequence

<400> 193
Ser Pro Ser Tyr Val Tyr His Gln Phe
1 5

<210> 194
<211> 14
<212> PRT
<213> Artificial Sequence

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

<400> 194
Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
1 5 10

<210> 195
<211> 9
<212> PRT

<213> Homo sapiens

<400> 195
Asp Leu Met Gly Tyr Ile Pro Ala Val
1   5

<210> 196
<211> 10
<212> PRT
<213> Homo sapiens

<400> 196
Phe Leu Pro Ser Asp Phe Phe Pro Ser Val
1   5   10

<210> 197
<211> 9
<212> PRT
<213> Homo sapiens

<400> 197
Phe Leu Leu Thr Arg Ile Leu Thr Ile
1   5

<210> 198
<211> 9
<212> PRT
<213> Homo sapiens

<400> 198
Phe Leu Leu Ser Leu Gly Ile His Leu
1   5

<210> 199
<211> 9
<212> PRT
<213> Homo sapiens

<400> 199
Ile Leu Lys Glu Pro Val His Gly Val
1   5

<210> 200
<211> 10
<212> PRT
<213> Homo sapiens

<400> 200
Tyr Met Leu Asp Leu Gln Pro Glu Thr Thr
1   5   10

<210> 201
<211> 9
<212> PRT
<213> Homo sapiens

<400> 201
Cys Ile Asn Gly Val Cys Trp Thr Val
1   5

<210> 202
<211> 10
<212> PRT
<213> Homo sapiens

<400> 202
Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu
1   5   10

<210> 203
<211> 9
<212> PRT
<213> Homo sapiens

<400> 203
Phe Leu Tyr Ala Leu Ala Leu Leu Leu
1   5

<210> 204
<211> 9
<212> PRT
<213> Homo sapiens

<400> 204
Ala Ala Gly Ile Gly Ile Leu Thr Val
1   5

<210> 205
<211> 9
<212> PRT
<213> Homo sapiens

<400> 205
Ser Leu Leu Met Trp Ile Thr Gln Val
1   5

<210> 206
<211> 9
<212> PRT
<213> Homo sapiens

<400> 206
Lys Leu Gly Gly Ala Leu Gln Ala Lys

1 5

<210> 207
<211> 9
<212> PRT
<213> Homo sapiens

<400> 207
Arg Leu Arg Ala Glu Ala Gln Val Lys
1 5

<210> 208
<211> 10
<212> PRT
<213> Homo sapiens

<400> 208
Glu Glu Asn Leu Leu Asp Phe Val Arg Phe
1 5 10

<210> 209
<211> 9
<212> PRT
<213> Homo sapiens

<400> 209
Glu Glu Tyr Leu Gln Ala Phe Thr Tyr
1 5

<210> 210
<211> 9
<212> PRT
<213> Mus sp.

<400> 210
Asp Trp Glu Asn Val Ser Pro Glu Leu
1 5