SEQUENCE LISTING

<110> PsiOxus Therapeutics Limited

<120> Formulation

<130> P000249_WO

<150> GB1801614.7
<151> 2018-01-31

<160> 65

<170> PatentIn version 3.5

<210> 1
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Splice Acceptor (SA)

<400> 1
cctttctctc ttcagg 16

<210> 2
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Branched Splice Acceptor (BSA)

<400> 2
tgctaatcct ttctctcttc agg 23

<210> 3
<211> 551
<212> DNA
<213> Artificial Sequence

<220>
<223> Internal Ribosome Entry sequence (IRES)

<400> 3
cgttactggc cgaagccgct tggaataagg ccggtgtgcg tttgtctata tgttattttc 60

caccatattg ccgtcttttg gcaatgtgag ggcccggaaa cctggccctg tcttcttgac 120

gagcattcct aggggtcttt cccctctcgc caaaggaatg caaggtctgt tgaatgtcgt 180

gaaggaagca gttcctctgg aagcttcttg aagacaaaca acgtctgtag cgacccttg 240

caggcagcgg aaccccccac ctggcgacag gtgcctctgc ggccaaaagc cacgtgtata 300

agatacacct gcaaaggcgg cacaacccca gtgccacgtt gtgagttgga tagttgtgga 360

aagagtcaaa tggctcccct caagcgtatt caacaagggg ctgaaggatg cccagaaggt 420

accccattgt atgggatctg atctggggcc tcggtgcaca tgcttttcat gtgtttagtc 480

gaggttaaaa aacgtctagg ccccccgaac cacggggacg tggttttcct ttgaaaaaca 540

cgatgataat a 551

<210> 4
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Polyadenylation sequence

<400> 4
cagacatgat aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa 60

aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca 120

ataaacaagt taacaacaac aattgcattc attttatgtt tcaggttcag ggggaggtgt 180

gggaggtttt tt 192

<210> 5
<211> 201
<212> DNA
<213> Artificial Sequence

<220>
<223> BX DNA sequence corresponding to and including bp 28166-28366 of the EnAd genome

<400> 5
aaaatgatta ataaaaaatc acttacttga aatcagcaat aaggtctctg ttgaaatttt 60

ctcccagcag cacctcactt ccctcttccc aactctggta ttctaaaccc cgttcagcgg 120

catactttct ccatacttta aaggggatgt caaattttag ctcctctcct gtacccacaa 180

tcttcatgtc tttcttccca g 201

<210> 6
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> BY DNA sequence corresponding to and including bp 29345-29379 of the EnAd genome

<400> 6
caaataaagt ttaacttgtt tatttgaaaa tcaat 35

<210> 7
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Leader Sequence

<400> 7

Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
1 5 10 15

Val His Ser

<210> 8
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Leader Sequence

<400> 8

Met Asp Trp Thr Trp Arg Val Phe Cys Leu Leu Ala Val Ala Pro Gly
1 5 10 15

Ala His Ser

<210> 9
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> P2A peptide

<400> 9

Gly Ser Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val
1 5 10 15

Glu Glu Asn Pro Gly Pro
20

<210> 10
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> F2A peptide

<400> 10

Gly Ser Gly Glu Gly Arg Gly Ser Leu Leu Thr Cys Gly Asp Val Glu
1 5 10 15

Glu Asn Pro Gly Pro
20

<210> 11
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> E2A peptide

<400> 11

Gly Ser Gly Gln Cys Thr Asn Tyr Ala Leu Leu Lys Leu Ala Gly Asp
1   5   10   15

Val Glu Ser Asn Pro Gly Pro
            20

<210> 12
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> T2A peptide

<400> 12

Gly Ser Gly Val Lys Gln Thr Leu Asn Phe Asp Leu Leu Lys Leu Ala
1   5   10   15

Gly Asp Val Glu Ser Asn Pro Gly Pro
            20   25

<210> 13
<211> 32326
<212> DNA
<213> Artificial Sequence

<220>
<223> EnAd genome

<400> 13
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt cattttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttaact tgtttatttg aaaatcaatt cacaaaatcc gagtagttat 29400

tttgcctccc ccttcccatt taacagaata caccaatctc tccccacgca cagctttaaa 29460

catttggata ccattagata tagacatggt tttagattcc acattccaaa cagtttcaga 29520

gcgagccaat ctggggtcag tgatagataa aaatccatcg ggatagtctt ttaaagcgct 29580

ttcacagtcc aactgctgcg gatgcgactc cggagtctgg atcacggtca tctggaagaa 29640

gaacgatggg aatcataatc cgaaaacggt atcggacgat tgtgtctcat caaacccaca 29700

agcagccgct gtctgcgtcg ctccgtgcga ctgctgttta tgggatcagg gtccacagtg 29760

tcctgaagca tgattttaat agcccttaac atcaactttc tggtgcgatg cgcgcagcaa 29820

cgcattctga tttcactcaa atctttgcag taggtacaac acattattac aatattgttt 29880

aataaaccat aattaaaagc gctccagcca aaactcatat ctgatataat cgcccctgca 29940

tgaccatcat accaaagttt aatataaatt aaatgacgtt ccctcaaaaa cacactaccc 30000

acatacatga tctcttttgg catgtgcata ttaacaatct gtctgtacca tggacaacgt 30060

tggttaatca tgcaacccaa tataaccttc cggaaccaca ctgccaacac cgctccccca 30120

gccatgcatt gaagtgaacc ctgctgatta caatgacaat gaagaaccca attctctcga 30180

ccgtgaatca cttgagaatg aaaaatatct atagtggcac aacatagaca taaatgcatg 30240

catcttctca taatttttaa ctcctcagga tttagaaaca tatcccaggg aataggaagc 30300

tcttgcagaa cagtaaagct ggcagaacaa ggaagaccac gaacacaact tacactatgc 30360

atagtcatag tatcacaatc tggcaacagc gggtggtctt cagtcataga agctcgggtt 30420

tcattttcct cacaacgtgg taactgggct ctggtgtaag ggtgatgtct ggcgcatgat 30480

gtcgagcgtg cgcgcaacct tgtcataatg gagttgcttc ctgacattct cgtattttgt 30540

atagcaaaac gcggccctgg cagaacacac tcttcttcgc cttctatcct gccgcttagc 30600

gtgttccgtg tgatagttca agtacaacca cactcttaag ttggtcaaaa gaatgctggc 30660

ttcagttgta atcaaaactc catcgcatct aatcgttctg aggaaatcat ccaagcaatg 30720

caactggatt gtgtttcaag caggagagga gagggaagag acggaagaac catgttaatt 30780

tttattccaa acgatctcgc agtacttcaa attgtagatc gcgcagatgg catctctcgc 30840

ccccactgtg ttggtgaaaa agcacagcta gatcaaaaga aatgcgattt tcaaggtgct 30900

caacggtggc ttccagcaaa gcctccacgc gcacatccaa gaacaaaaga ataccaaaag 30960

aaggagcatt ttctaactcc tcaatcatca tattacattc ctgcaccatt cccagataat 31020

tttcagcttt ccagccttga attattcgtg tcagttcttg tggtaaatcc aatccacaca 31080

ttacaaacag gtcccggagg gcgccctcca ccaccattct taaacacacc ctcataatga 31140

caaaatatct tgctcctgtg tcacctgtag cgaattgaga atggcaacat caattgacat 31200

gcccttggct ctaagttctt ctttaagttc tagttgtaaa aactctctca tattatcacc 31260

aaactgctta gccagaagcc ccccgggaac aagagcaggg gacgctacag tgcagtacaa 31320

gcgcagacct ccccaattgg ctccagcaaa aacaagattg gaataagcat attgggaacc 31380

gccagtaata tcatcgaagt tgctggaaat ataatcaggc agagtttctt gtaaaaattg 31440

aataaaagaa aaatttgcca aaaaaacatt caaaacctct gggatgcaaa tgcaataggt 31500

taccgcgctg cgctccaaca ttgttagttt tgaattagtc tgcaaaaata aaaaaaaaaa 31560

caagcgtcat atcatagtag cctgacgaac agatggataa atcagtcttt ccatcacaag 31620

acaagccaca gggtctccag ctcgaccctc gtaaaacctg tcatcatgat taaacaacag 31680

caccgaaagt tcctcgcggt gaccagcatg aataattctt gatgaagcat acaatccaga 31740

catgttagca tcagttaacg agaaaaaaca gccaacatag cctttgggta taattatgct 31800

taatcgtaag tatagcaaag ccacccctcg cggatacaaa gtaaaaggca caggagaata 31860

aaaaatataa ttatttctct gctgctgttc aggcaacgtc gcccccggtc cctctaaata 31920

cacatacaaa gcctcatcag ccatggctta ccagacaaag tacagcgggc acacaaagca 31980

caagctctaa agtgactctc caacctctcc acaatatata tatacacaag ccctaaactg 32040

acgtaatggg agtaaagtgt aaaaaatccc gccaaaccca acacacaccc cgaaactgcg 32100

tcaccaggga aaagtacagt ttcacttccg caatcccaac aggcgtaact tcctctttct 32160

cacggtacgt gatatcccac taacttgcaa cgtcattttc ccacggtcgc accgcccctt 32220

ttagccgtta accccacagc caatcaccac acgatccaca ctttttaaaa tcacctcatt 32280

tacatattgg caccattcca tctataaggt atattatata gataga 32326

<210> 14
<211> 34099
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-73 virus Genome Sequence

<400> 14
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

ctttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct agtaatcaat tacggggtca 29400

ttagttcata gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct 29460

ggctgaccgc ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta 29520

acgccaatag ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac 29580

ttggcagtac atcaagtgta tcatatgcca agtacgcccc ctattgacgt caatgacggt 29640

aaatggcccg cctggcatta tgcccagtac atgaccttat gggactttcc tacttggcag 29700

tacatctacg tattagtcat cgctattacc atgctgatgc ggttttggca gtacatcaat 29760

gggcgtggat agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat 29820

gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc 29880

ccattgacgc aaatgggcgg taggcgtgta cggtgggagg tctatataag cagagctggt 29940

ttagtgaacc gtcagatcag atctttgtcg atcctaccat ccactcgaca cacccgccag 30000

cggccgctgc caagcttccg agctctcgaa ttcaaaggag gtacccacca tgggatggag 30060

ctgtatcatc ctcttcttgg tagcaacagc tacaggtgtc cactccgagg ttcagctggt 30120

ggagtctggc ggtggcctgg tgcagccagg gggctcactc cgtttgtcct gtgcagcttc 30180

tggctatacc ttcaccaact atggtatgaa ctgggtccgt caggccccgg gtaagggcct 30240

ggaatgggtt ggatggatta acacctatac cggtgaaccg acctatgctg cggatttcaa 30300

acgtcgtttt actttttctc tggacacctc caagagcaca gcttacctgc agatgaacag 30360

cctgcgcgct gaggacactg ccgtctatta ctgtgcaaag tacccgcact attatgggag 30420

cagccactgg tatttcgacg tctggggtca aggaaccctg gtcaccgtct cctcgggtgg 30480

cggtggctcg ggcggtggtg gatctggtgg cggcggatct gatatccaga tgacccagtc 30540

cccgagctcc ctgtccgcct ctgtgggcga tagggtcacc atcacctgca gcgcaagtca 30600

ggatattagc aactatttaa actggtatca acagaaacca ggaaaagctc cgaaagtcct 30660

gatttacttc acctcctctc tccactctgg agtcccttct cgcttctctg gatccggttc 30720

tgggacggat ttcactctga ccatcagcag tctgcagcca gaagacttcg caacttatta 30780

ctgtcaacag tatagcaccg tgccgtggac gtttggacag ggtaccaagg tggagatcaa 30840

acgataagct agcttgactg actgagatac agcgtacctt cagctcacag acatgataag 30900

atacattgat gagtttggac aaaccacaac tagaatgcag tgaaaaaaat gctttatttg 30960

tgaaatttgt gatgctattg ctttatttgt aaccattata agctgcaata aacaagttaa 31020

caacaacaat tgcattcatt ttatgtttca ggttcagggg gaggtgtggg aggttttta 31080

aagcaagtaa aacctctaca aatgtggtag tcgtcagcta tcctgcagga acttgtttat 31140

ttgaaaatca attcacaaaa tccgagtagt tattttgcct ccccttccc atttaacaga 31200

atacaccaat ctctccccac gcacagcttt aaacatttgg ataccattag atatagacat 31260

ggttttagat tccacattcc aaacagtttc agagcgagcc aatctggggt cagtgataga 31320

taaaaatcca tcgggatagt cttttaaagc gctttcacag tccaactgct gcggatgcga 31380

ctccggagtc tggatcacgg tcatctggaa gaagaacgat gggaatcata atccgaaaac 31440

ggtatcggac gattgtgtct catcaaaccc acaagcagcc gctgtctgcg tcgctccgtg 31500

cgactgctgt ttatgggatc agggtccaca gtgtcctgaa gcatgatttt aatagccctt 31560

aacatcaact ttctggtgcg atgcgcgcag caacgcattc tgatttcact caaatctttg 31620

cagtaggtac aacacattat tacaatattg tttaataaac cataattaaa agcgctccag 31680

ccaaaactca tatctgatat aatcgcccct gcatgaccat cataccaaag tttaatataa 31740

attaaatgac gttccctcaa aaacacacta cccacataca tgatctcttt tggcatgtgc 31800

atattaacaa tctgtctgta ccatggacaa cgttggttaa tcatgcaacc caatataacc 31860

ttccggaacc acactgccaa caccgctccc ccagccatgc attgaagtga accctgctga 31920

ttacaatgac aatgaagaac ccaattctct cgaccgtgaa tcacttgaga atgaaaaata 31980

tctatagtgg cacaacatag acataaatgc atgcatcttc tcataatttt taactcctca 32040

ggatttagaa acatatccca gggaatagga agctcttgca gaacagtaaa gctggcagaa 32100

caaggaagac cacgaacaca acttacacta tgcatagtca tagtatcaca atctggcaac 32160

agcgggtggt cttcagtcat agaagctcgg gtttcatttt cctcacaacg tggtaactgg 32220

gctctggtgt aagggtgatg tctggcgcat gatgtcgagc gtgcgcgcaa ccttgtcata 32280

atggagttgc ttcctgacat tctcgtattt tgtatagcaa aacgcggccc tggcagaaca 32340

cactcttctt cgccttctat cctgccgctt agcgtgttcc gtgtgatagt tcaagtacaa 32400

ccacactctt aagttggtca aaagaatgct ggcttcagtt gtaatcaaaa ctccatcgca 32460

tctaatcgtt ctgaggaaat catccaagca atgcaactgg attgtgtttc aagcaggaga 32520

ggagagggaa gagacggaag aaccatgtta atttttattc caaacgatct cgcagtactt 32580

caaattgtag atcgcgcaga tggcatctct cgcccccact gtgttggtga aaaagcacag 32640

ctagatcaaa agaaatgcga ttttcaaggt gctcaacggt ggcttccagc aaagcctcca 32700

cgcgcacatc caagaacaaa agaataccaa aagaaggagc attttctaac tcctcaatca 32760

tcatattaca ttcctgcacc attcccagat aattttcagc tttccagcct tgaattattc 32820

gtgtcagttc ttgtggtaaa tccaatccac acattacaaa caggtcccgg agggcgccct 32880

ccaccaccat tcttaaacac accctcataa tgacaaaata tcttgctcct gtgtcacctg 32940

tagcgaattg agaatggcaa catcaattga catgcccttg gctctaagtt cttctttaag 33000

ttctagttgt aaaaactctc tcatattatc accaaactgc ttagccagaa gccccccggg 33060

aacaagagca ggggacgcta cagtgcagta caagcgcaga cctccccaat tggctccagc 33120

aaaaacaaga ttggaataag catattggga accgccagta atatcatcga agttgctgga 33180

aatataatca ggcagagttt cttgtaaaaa ttgaataaaa gaaaaatttg ccaaaaaaac 33240

attcaaaacc tctgggatgc aaatgcaata ggttaccgcg ctgcgctcca acattgttag 33300

ttttgaatta gtctgcaaaa ataaaaaaaa aaacaagcgt catatcatag tagcctgacg 33360

aacagatgga taaatcagtc tttccatcac aagacaagcc acagggtctc cagctcgacc 33420

ctcgtaaaac ctgtcatcat gattaaacaa cagcaccgaa agttcctcgc ggtgaccagc 33480

atgaataatt cttgatgaag catacaatcc agacatgtta gcatcagtta acgagaaaaa 33540

acagccaaca tagcctttgg gtataattat gcttaatcgt aagtatagca aagccacccc 33600

tcgcggatac aaagtaaaag gcacaggaga ataaaaaata taattatttc tctgctgctg 33660

ttcaggcaac gtcgcccccg gtccctctaa atacacatac aaagcctcat cagccatggc 33720

ttaccagaca aagtacagcg ggcacacaaa gcacaagctc taaagtgact ctccaacctc 33780

tccacaatat atatatacac aagccctaaa ctgacgtaat gggagtaaag tgtaaaaaat 33840

cccgccaaac ccaacacaca ccccgaaact gcgtcaccag ggaaaagtac agtttcactt 33900

ccgcaatccc aacaggcgta acttcctctt tctcacggta cgtgatatcc cactaacttg 33960

caacgtcatt ttcccacggt cgcaccgccc cttttagccg ttaaccccac agccaatcac 34020

cacacgatcc acacttttta aaatcacctc atttacatat tggcaccatt ccatctataa 34080

ggtatattat atagataga 34099

<210> 15
<211> 33442
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-74 virus Genome Sequence

<400> 15
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctgctaa tcctttctct cttcaggcca ccatgggatg 29400

gagctgtatc atcctcttct tggtagcaac agctacaggt gtccactccg aggttcagct 29460

ggtggagtct ggcggtggcc tggtgcagcc agggggctca ctccgtttgt cctgtgcagc 29520

ttctggctat accttcacca actatggtat gaactgggtc cgtcaggccc cgggtaaggg 29580

cctggaatgg gttggatgga ttaacaccta taccggtgaa ccgacctatg ctgcggattt 29640

caaacgtcgt tttacttttt ctctggacac ctccaagagc acagcttacc tgcagatgaa 29700

cagcctgcgc gctgaggaca ctgccgtcta ttactgtgca aagtacccgc actattatgg 29760

gagcagccac tggtatttcg acgtctgggg tcaaggaacc ctggtcaccg tctcctcggg 29820

tggcggtggc tcgggcggtg gtggatctgg tggcggcgga tctgatatcc agatgaccca 29880

gtccccgagc tccctgtccg cctctgtggg cgatagggtc accatcacct gcagcgcaag 29940

tcaggatatt agcaactatt taaactggta tcaacagaaa ccaggaaaag ctccgaaagt 30000

cctgatttac ttcacctcct ctctccactc tggagtccct tctcgcttct ctggatccgg 30060

ttctgggacg gatttcactc tgaccatcag cagtctgcag ccagaagact tcgcaactta 30120

ttactgtcaa cagtatagca ccgtgccgtg gacgtttgga cagggtacca aggtggagat 30180

caaacgataa gctagcttga ctgactgaga tacagcgtac cttcagctca cagacatgat 30240

aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa aatgctttat 30300

ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca ataaacaagt 30360

taacaacaac aattgcattc attttatgtt tcaggttcag ggggaggtgt gggaggtttt 30420

ttaaagcaag taaaacctct acaaatgtgg tagtcgtcag ctatcctgca ggaacttgtt 30480

tatttgaaaa tcaattcaca aaatccgagt agttattttg cctccccctt cccatttaac 30540

agaatacacc aatctctccc cacgcacagc tttaaacatt tggataccat tagatataga 30600

catggtttta gattccacat tccaaacagt ttcagagcga gccaatctgg ggtcagtgat 30660

agataaaaat ccatcgggat agtcttttaa agcgctttca cagtccaact gctgcggatg 30720

cgactccgga gtctggatca cggtcatctg gaagaagaac gatgggaatc ataatccgaa 30780

aacggtatcg gacgattgtg tctcatcaaa cccacaagca gccgctgtct gcgtcgctcc 30840

gtgcgactgc tgtttatggg atcagggtcc acagtgtcct gaagcatgat tttaatagcc 30900

cttaacatca actttctggt gcgatgcgcg cagcaacgca ttctgatttc actcaaatct 30960

ttgcagtagg tacaacacat tattacaata ttgtttaata aaccataatt aaaagcgctc 31020

cagccaaaac tcatatctga tataatcgcc cctgcatgac catcatacca aagtttaata 31080

taaattaaat gacgttccct caaaaacaca ctacccacat acatgatctc ttttggcatg 31140

tgcatattaa caatctgtct gtaccatgga caacgttggt taatcatgca acccaatata 31200

accttccgga accacactgc caacaccgct cccccagcca tgcattgaag tgaaccctgc 31260

tgattacaat gacaatgaag aacccaattc tctcgaccgt gaatcacttg agaatgaaaa 31320

atatctatag tggcacaaca tagacataaa tgcatgcatc ttctcataat ttttaactcc 31380

tcaggattta gaaacatatc ccagggaata ggaagctctt gcagaacagt aaagctggca 31440

gaacaaggaa gaccacgaac acaacttaca ctatgcatag tcatagtatc acaatctggc 31500

aacagcgggt ggtcttcagt catagaagct cgggtttcat tttcctcaca acgtggtaac 31560

tgggctctgg tgtaagggtg atgtctggcg catgatgtcg agcgtgcgcg caaccttgtc 31620

ataatggagt tgcttcctga cattctcgta ttttgtatag caaaacgcgg ccctggcaga 31680

acacactctt cttcgccttc tatcctgccg cttagcgtgt tccgtgtgat agttcaagta 31740

caaccacact cttaagttgg tcaaaagaat gctggcttca gttgtaatca aaactccatc 31800

gcatctaatc gttctgagga aatcatccaa gcaatgcaac tggattgtgt ttcaagcagg 31860

agaggagagg gaagagacgg aagaaccatg ttaattttta ttccaaacga tctcgcagta 31920

cttcaaattg tagatcgcgc agatggcatc tctcgccccc actgtgttgg tgaaaaagca 31980

cagctagatc aaaagaaatg cgattttcaa ggtgctcaac ggtggcttcc agcaaagcct 32040

ccacgcgcac atccaagaac aaaagaatac caaaagaagg agcattttct aactcctcaa 32100

tcatcatatt acattcctgc accattccca gataattttc agctttccag ccttgaatta 32160

ttcgtgtcag ttcttgtggt aaatccaatc cacacattac aaacaggtcc cggagggcgc 32220

cctccaccac cattcttaaa cacaccctca taatgacaaa atatcttgct cctgtgtcac 32280

ctgtagcgaa ttgagaatgg caacatcaat tgacatgccc ttggctctaa gttcttcttt 32340

aagttctagt tgtaaaaact ctctcatatt atcaccaaac tgcttagcca gaagcccccc 32400

gggaacaaga gcaggggacg ctacagtgca gtacaagcgc agacctcccc aattggctcc 32460

agcaaaaaca agattggaat aagcatattg ggaaccgcca gtaatatcat cgaagttgct 32520

ggaaatataa tcaggcagag tttcttgtaa aaattgaata aaagaaaaat ttgccaaaaa 32580

aacattcaaa acctctggga tgcaaatgca ataggttacc gcgctgcgct ccaacattgt 32640

tagttttgaa ttagtctgca aaaataaaaa aaaaaacaag cgtcatatca tagtagcctg 32700

acgaacagat ggataaatca gtctttccat cacaagacaa gccacagggt ctccagctcg 32760

accctcgtaa aacctgtcat catgattaaa caacagcacc gaaagttcct cgcggtgacc 32820

agcatgaata attcttgatg aagcatacaa tccagacatg ttagcatcag ttaacgagaa 32880

aaaacagcca acatagcctt tgggtataat tatgcttaat cgtaagtata gcaaagccac 32940

ccctcgcgga tacaaagtaa aaggcacagg agaataaaaa atataattat ttctctgctg 33000

ctgttcaggc aacgtcgccc ccggtccctc taaatacaca tacaaagcct catcagccat 33060

ggcttaccag acaaagtaca gcgggcacac aaagcacaag ctctaaagtg actctccaac 33120

ctctccacaa tatatatata cacaagccct aaactgacgt aatgggagta aagtgtaaaa 33180

aatcccgcca aacccaacac acaccccgaa actgcgtcac cagggaaaag tacagtttca 33240

cttccgcaat cccaacaggc gtaacttcct ctttctcacg gtacgtgata tcccactaac 33300

ttgcaacgtc attttcccac ggtcgcaccg ccccttttag ccgttaaccc cacagccaat 33360

caccacacga tccacacttt ttaaaatcac ctcatttaca tattggcacc attccatcta 33420

taaggtatat tatatagata ga 33442

<210> 16
<211> 34117
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-76 virus Genome Sequence

<400> 16
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct agtaatcaat tacggggtca 29400

ttagttcata gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct 29460

ggctgaccgc ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta 29520

acgccaatag ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac 29580

ttggcagtac atcaagtgta tcatatgcca agtacgcccc ctattgacgt caatgacggt 29640

aaatggcccg cctggcatta tgcccagtac atgaccttat gggactttcc tacttggcag 29700

tacatctacg tattagtcat cgctattacc atgctgatgc ggttttggca gtacatcaat 29760

gggcgtggat agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat 29820

gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc 29880

ccattgacgc aaatgggcgg taggcgtgta cggtgggagg tctatataag cagagctggt 29940

ttagtgaacc gtcagatcag atctttgtcg atcctaccat ccactcgaca cacccgccag 30000

cggccgctgc caagcttccg agctctcgaa ttcaaaggag gtacccacca tgggatggag 30060

ctgtatcatc ctcttcttgg tagcaacagc tacaggtgtc cactccgagg ttcagctggt 30120

ggagtctggc ggtggcctgg tgcagccagg gggctcactc cgtttgtcct gtgcagcttc 30180

tggctatacc ttcaccaact atggtatgaa ctgggtccgt caggccccgg gtaagggcct 30240

ggaatgggtt ggatggatta acacctatac cggtgaaccg acctatgctg cggatttcaa 30300

acgtcgtttt actttttctc tggacacctc caagagcaca gcttacctgc agatgaacag 30360

cctgcgcgct gaggacactg ccgtctatta ctgtgcaaag tacccgcact attatgggag 30420

cagccactgg tatttcgacg tctggggtca aggaaccctg gtcaccgtct cctcgggtgg 30480

cggtggctcg ggcggtggtg gatctggtgg cggcggatct gatatccaga tgacccagtc 30540

cccgagctcc ctgtccgcct ctgtgggcga tagggtcacc atcacctgca gcgcaagtca 30600

ggatattagc aactatttaa actggtatca acagaaacca ggaaaagctc cgaaagtcct 30660

gatttacttc acctcctctc tccactctgg agtcccttct cgcttctctg gatccggttc 30720

tgggacggat ttcactctga ccatcagcag tctgcagcca gaagacttcg caacttatta 30780

ctgtcaacag tatagcaccg tgccgtggac gtttggacag ggtaccaagg tggagatcaa 30840

acgacatcat caccaccacc attaagctag cttgactgac tgagatacag cgtaccttca 30900

gctcacagac atgataagat acattgatga gtttggacaa accacaacta gaatgcagtg 30960

aaaaaaatgc tttatttgtg aaatttgtga tgctattgct ttatttgtaa ccattataag 31020

ctgcaataaa caagttaaca acaacaattg cattcatttt atgtttcagg ttcaggggga 31080

ggtgtgggag gtttttaaa gcaagtaaaa cctctacaaa tgtggtagtc gtcagctatc 31140

ctgcaggaac ttgtttattt gaaaatcaat tcacaaaatc cgagtagtta ttttgcctcc 31200

cccttcccat ttaacagaat acaccaatct ctccccacgc acagctttaa acatttggat 31260

accattagat atagacatgg ttttagattc cacattccaa acagtttcag agcgagccaa 31320

tctggggtca gtgatagata aaaatccatc gggatagtct tttaaagcgc tttcacagtc 31380

caactgctgc ggatgcgact ccggagtctg gatcacggtc atctggaaga agaacgatgg 31440

gaatcataat ccgaaaacgg tatcggacga ttgtgtctca tcaaacccac aagcagccgc 31500

tgtctgcgtc gctccgtgcg actgctgttt atgggatcag ggtccacagt gtcctgaagc 31560

atgattttaa tagcccttaa catcaacttt ctggtgcgat gcgcgcagca acgcattctg 31620

atttcactca aatctttgca gtaggtacaa cacattatta caatattgtt taataaacca 31680

taattaaaag cgctccagcc aaaactcata tctgatataa tcgcccctgc atgaccatca 31740

taccaaagtt taatataaat taaatgacgt tccctcaaaa acacactacc cacatacatg 31800

atctcttttg gcatgtgcat attaacaatc tgtctgtacc atggacaacg ttggttaatc 31860

atgcaaccca atataacctt ccggaaccac actgccaaca ccgctccccc agccatgcat 31920

tgaagtgaac cctgctgatt acaatgacaa tgaagaaccc aattctctcg accgtgaatc 31980

acttgagaat gaaaaatatc tatagtggca caacatagac ataaatgcat gcatcttctc 32040

ataattttta actcctcagg atttagaaac atatcccagg gaataggaag ctcttgcaga 32100

acagtaaagc tggcagaaca aggaagacca cgaacacaac ttacactatg catagtcata 32160

gtatcacaat ctggcaacag cgggtggtct tcagtcatag aagctcgggt ttcattttcc 32220

tcacaacgtg gtaactgggc tctggtgtaa gggtgatgtc tggcgcatga tgtcgagcgt 32280

gcgcgcaacc ttgtcataat ggagttgctt cctgacattc tcgtattttg tatagcaaaa 32340

cgcggccctg gcagaacaca ctcttcttcg ccttctatcc tgccgcttag cgtgttccgt 32400

gtgatagttc aagtacaacc acactcttaa gttggtcaaa agaatgctgg cttcagttgt 32460

aatcaaaact ccatcgcatc taatcgttct gaggaaatca tccaagcaat gcaactggat 32520

tgtgtttcaa gcaggagagg agagggaaga gacggaagaa ccatgttaat ttttattcca 32580

aacgatctcg cagtacttca aattgtagat cgcgcagatg gcatctctcg cccccactgt 32640

gttggtgaaa aagcacagct agatcaaaag aaatgcgatt ttcaaggtgc tcaacggtgg 32700

cttccagcaa agcctccacg cgcacatcca agaacaaaag aataccaaaa gaaggagcat 32760

tttctaactc ctcaatcatc atattacatt cctgcaccat tcccagataa ttttcagctt 32820

tccagccttg aattattcgt gtcagttctt gtggtaaatc caatccacac attacaaaca 32880

ggtcccggag ggcgccctcc accaccattc ttaaacacac cctcataatg acaaaatatc 32940

ttgctcctgt gtcacctgta gcgaattgag aatggcaaca tcaattgaca tgcccttggc 33000

tctaagttct tctttaagtt ctagttgtaa aaactctctc atattatcac caaactgctt 33060

agccagaagc cccccgggaa caagagcagg ggacgctaca gtgcagtaca agcgcagacc 33120

tccccaattg gctccagcaa aaacaagatt ggaataagca tattgggaac cgccagtaat 33180

atcatcgaag ttgctggaaa tataatcagg cagagtttct tgtaaaaatt gaataaaaga 33240

aaaatttgcc aaaaaaacat tcaaaacctc tgggatgcaa atgcaatagg ttaccgcgct 33300

gcgctccaac attgttagtt ttgaattagt ctgcaaaaat aaaaaaaaaa acaagcgtca 33360

tatcatagta gcctgacgaa cagatggata aatcagtctt tccatcacaa gacaagccac 33420

agggtctcca gctcgaccct cgtaaaacct gtcatcatga ttaaacaaca gcaccgaaag 33480

ttcctcgcgg tgaccagcat gaataattct tgatgaagca tacaatccag acatgttagc 33540

atcagttaac gagaaaaaac agccaacata gcctttgggt ataattatgc ttaatcgtaa 33600

gtatagcaaa gccacccctc gcggatacaa agtaaaaggc acaggagaat aaaaaatata 33660

attatttctc tgctgctgtt caggcaacgt cgcccccggt ccctctaaat acacatacaa 33720

agcctcatca gccatggctt accagacaaa gtacagcggg cacacaaagc acaagctcta 33780

aagtgactct ccaacctctc cacaatatat atatacacaa gccctaaact gacgtaatgg 33840

gagtaaagtg taaaaaatcc cgccaaaccc aacacacacc ccgaaactgc gtcaccaggg 33900

aaaagtacag tttcacttcc gcaatcccaa caggcgtaac ttcctctttc tcacggtacg 33960

tgatatccca ctaacttgca acgtcatttt cccacggtcg caccgcccct tttagccgtt 34020

aaccccacag ccaatcacca cacgatccac acttttttaaa atcacctcat ttacatattg 34080

gcaccattcc atctataagg tatattatat agataga 34117

<210> 17
<211> 35373
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-77 virus Genome Sequence

<400> 17
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctgctaa tcctttctct cttcaggcca ccatgggatg 29400

gagctgtatc atcctcttct tggtagcaac agctacaggt gtccactccg aggttcagct 29460

ggtggagtct ggcggtggcc tggtgcagcc agggggctca ctccgtttgt cctgtgcagc 29520

ttctggctat accttcacca actatggtat gaactgggtc cgtcaggccc cgggtaaggg 29580

cctggaatgg gttggatgga ttaacaccta taccggtgaa ccgacctatg ctgcggattt 29640

caaacgtcgt tttacttttt ctctggacac ctccaagagc acagcttacc tgcagatgaa 29700

cagcctgcgc gctgaggaca ctgccgtcta ttactgtgca aagtacccgc actattatgg 29760

gagcagccac tggtatttcg acgtctgggg tcaaggaacc ctggtcaccg tctcctcggc 29820

ctccaccaag ggcccatcgg tcttcccccc ggcaccctcc tccaagagca cctctggggg 29880

cacagcggcc ctgggctgcc tggtcaagga ctacttcccc gaaccggtga cggtgtcgtg 29940

gaactcaggc gccctgacca gcggcgtgca caccttcccg gctgtcctac agtcctcagg 30000

actctactcc ctcagcagcg tggtgaccgt gccctccagc agcttgggca cccagaccta 30060

catctgcaac gtgaatcaca agcccagcaa caccaaggtc gacaagaaag ttgagcccaa 30120

atcttgtgac aaaactcaca catgcccacc gtgcccagca cctgagctcc tgggggggacc 30180

gtcagtcttc ctcttccccc caaaacccaa ggacaccctc atgatctccc ggacccctga 30240

ggtcacatgc gtggtggtgg acgtgagcca cgaagaccct gaggtcaagt tcaactggta 30300

cgtggacggc gtggaggtgc ataatgccaa gacaaagccg cgggaggagc agtacaacag 30360

cacgtaccgt gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga 30420

gtacaagtgc aaggtctcca acaaagccct cccagccccc atcgagaaaa ccatctccaa 30480

agccaaaggg cagccccgag aaccacaggt gtacaccctg cccccatccc gggaggagat 30540

gaccaagaac caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc 30600

cgtggagtgg gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct 30660

ggactccgac ggctccttct tcctctacag caagctcacc gtggacaaga gcaggtggca 30720

gcaggggaac gtcttctcat gctccgtgat gcacgaggct ctgcacaacc actacacgca 30780

gaagagcctc tccctgtctc cgggtaaatg atctagactc gaggtttcta gaagttgtct 30840

cctcctgcac tgactgactg acctaacgtt actggccgaa gccgcttgga ataaggccgg 30900

tgtgcgtttg tctatatgtt attttccacc atattgccgt cttttggcaa tgtgagggcc 30960

cggaaacctg gccctgtctt cttgacgagc attcctaggg gtctttcccc tctcgccaaa 31020

ggaatgcaag gtctgttgaa tgtcgtgaag gaagcagttc ctctggaagc ttcttgaaga 31080

caaacaacgt ctgtagcgac cctttgcagg cagcggaacc ccccacctgg cgacaggtgc 31140

ctctgcggcc aaaagccacg tgtataagat acacctgcaa aggcggcaca accccagtgc 31200

cacgttgtga gttggatagt tgtggaaaga gtcaaatggc tcccctcaag cgtattcaac 31260

aaggggctga aggatgccca gaaggtaccc cattgtatgg gatctgatct ggggcctcgg 31320

tgcacatgct tttcatgtgt ttagtcgagg ttaaaaaacg tctaggcccc ccgaaccacg 31380

gggacgtggt tttcctttga aaaacacgat gataataaca tgggatggag ctgtatcatc 31440

ctcttcttgg tagcaacagc tacaggtgtc cactccgata tccagatgac ccagtccccg 31500

agctccctgt ccgcctctgt gggcgatagg gtcaccatca cctgcagcgc aagtcaggat 31560

attagcaact atttaaactg gtatcaacag aaaccaggaa aagctccgaa agtcctgatt 31620

tacttcacct cctctctcca ctctggagtc ccttctcgct tctctggatc cggttctggg 31680

acggatttca ctctgaccat cagcagtctg cagccagaag acttcgcaac ttattactgt 31740

caacagtata gcaccgtgcc gtggacgttt ggacagggta ccaaggtgga gatcaaacga 31800

actgtggctg caccatctgt cttcatcttc ccgccatctg atgagcagtt gaaatctgga 31860

actgcttctg ttgtgtgcct gctgaataac ttctatccca gagaggccaa agtacagtgg 31920

aaggtggata acgccctcca atcgggtaac tcccaggaga gtgtcacaga gcaggacagc 31980

aaggacagca cctacagcct cagcagcacc ctgacgctga gcaaagcaga ctacgagaaa 32040

cacaaagtct acgcctgcga agtcacccat cagggcctga gctcgcccgt cacaaagagc 32100

ttcaacaggg gagagtgtta agctagcttg actgactgag atacagcgta ccttcagctc 32160

acagacatga taagatacat tgatgagttt ggacaaacca caactagaat gcagtgaaaa 32220

aaatgcttta tttgtgaaat ttgtgatgct attgctttat ttgtaaccat tataagctgc 32280

aataaacaag ttaacaacaa caattgcatt cattttatgt ttcaggttca gggggaggtg 32340

tgggaggttt tttaaagcaa gtaaaacctc tacaaatgtg gtagtcgtca gctatcctgc 32400

aggaacttgt ttatttgaaa atcaattcac aaaatccgag tagttatttt gcctcccccc 32460

tcccatttaa cagaatacac caatctctcc ccacgcacag ctttaaacat ttggatacca 32520

ttagatatag acatggtttt agattccaca ttccaaacag tttcagagcg agccaatctg 32580

gggtcagtga tagataaaaa tccatcggga tagtctttta aagcgctttc acagtccaac 32640

tgctgcggat gcgactccgg agtctggatc acggtcatct ggaagaagaa cgatgggaat 32700

cataatccga aaacggtatc ggacgattgt gtctcatcaa acccacaagc agccgctgtc 32760

tgcgtcgctc cgtgcgactg ctgtttatgg gatcagggtc cacagtgtcc tgaagcatga 32820

ttttaatagc ccttaacatc aactttctgg tgcgatgcgc gcagcaacgc attctgattt 32880

cactcaaatc tttgcagtag gtacaacaca ttattacaat attgtttaat aaaccataat 32940

taaaagcgct ccagccaaaa ctcatatctg atataatcgc ccctgcatga ccatcatacc 33000

aaagtttaat ataaattaaa tgacgttccc tcaaaaacac actacccaca tacatgatct 33060

cttttggcat gtgcatatta acaatctgtc tgtaccatgg acaacgttgg ttaatcatgc 33120

aacccaatat aaccttccgg aaccacactg ccaacaccgc tcccccagcc atgcattgaa 33180

gtgaaccctg ctgattacaa tgacaatgaa gaacccaatt ctctcgaccg tgaatcactt 33240

gagaatgaaa aatatctata gtggcacaac atagacataa atgcatgcat cttctcataa 33300

tttttaactc ctcaggattt agaaacatat cccagggaat aggaagctct tgcagaacag 33360

taaagctggc agaacaagga agaccacgaa cacaacttac actatgcata gtcatagtat 33420

cacaatctgg caacagcggg tggtcttcag tcatagaagc tcgggtttca ttttcctcac 33480

aacgtggtaa ctgggctctg gtgtaagggt gatgtctggc gcatgatgtc gagcgtgcgc 33540

gcaaccttgt cataatggag ttgcttcctg acattctcgt attttgtata gcaaaacgcg 33600

gccctggcag aacacactct tcttcgcctt ctatcctgcc gcttagcgtg ttccgtgtga 33660

tagttcaagt acaaccacac tcttaagttg gtcaaaagaa tgctggcttc agttgtaatc 33720

aaaactccat cgcatctaat cgttctgagg aaatcatcca agcaatgcaa ctggattgtg 33780

tttcaagcag gagaggagag ggaagagacg gaagaaccat gttaattttt attccaaacg 33840

atctcgcagt acttcaaatt gtagatcgcg cagatggcat ctctcgcccc cactgtgttg 33900

gtgaaaaagc acagctagat caaaagaaat gcgattttca aggtgctcaa cggtggcttc 33960

cagcaaagcc tccacgcgca catccaagaa caaaagaata ccaaaagaag gagcattttc 34020

taactcctca atcatcatat tacattcctg caccattccc agataatttt cagctttcca 34080

gccttgaatt attcgtgtca gttcttgtgg taaatccaat ccacacatta caaacaggtc 34140

ccggagggcg ccctccacca ccattcttaa acacaccctc ataatgacaa aatatcttgc 34200

tcctgtgtca cctgtagcga attgagaatg gcaacatcaa ttgacatgcc cttggctcta 34260

agttcttctt taagttctag ttgtaaaaac tctctcatat tatcaccaaa ctgcttagcc 34320

agaagccccc cgggaacaag agcaggggac gctacagtgc agtacaagcg cagacctccc 34380

caattggctc cagcaaaaac aagattggaa taagcatatt gggaaccgcc agtaatatca 34440

tcgaagttgc tggaaatata atcaggcaga gtttcttgta aaaattgaat aaaagaaaaa 34500

tttgccaaaa aaacattcaa aacctctggg atgcaaatgc aataggttac cgcgctgcgc 34560

tccaacattg ttagttttga attagtctgc aaaaataaaa aaaaaaacaa gcgtcatatc 34620

atagtagcct gacgaacaga tggataaatc agtctttcca tcacaagaca agccacaggg 34680

tctccagctc gaccctcgta aaacctgtca tcatgattaa acaacagcac cgaaagttcc 34740

tcgcggtgac cagcatgaat aattcttgat gaagcataca atccagacat gttagcatca 34800

gttaacgaga aaaaacagcc aacatagcct ttgggtataa ttatgcttaa tcgtaagtat 34860

agcaaagcca cccctcgcgg atacaaagta aaaggcacag gagaataaaa aatataatta 34920

tttctctgct gctgttcagg caacgtcgcc cccggtccct ctaaatacac atacaaagcc 34980

tcatcagcca tggcttacca gacaaagtac agcgggcaca caaagcacaa gctctaaagt 35040

gactctccaa cctctccaca atatatatat acacaagccc taaactgacg taatgggagt 35100

aaagtgtaaa aaatcccgcc aaacccaaca cacaccccga aactgcgtca ccagggaaaa 35160

gtacagtttc acttccgcaa tcccaacagg cgtaacttcc tctttctcac ggtacgtgat 35220

atcccactaa cttgcaacgt cattttccca cggtcgcacc gcccctttta gccgttaacc 35280

ccacagccaa tcaccacacg atccacactt tttaaaatca cctcatttac atattggcac 35340

cattccatct ataaggtata ttatatagat aga 35373

<210> 18
<211> 33460
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-78 virus genome sequence

<400> 18
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt cattttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctgctaa tcctttctct cttcaggcca ccatgggatg 29400

gagctgtatc atcctcttct tggtagcaac agctacaggt gtccactccg aggttcagct 29460

ggtggagtct ggcggtggcc tggtgcagcc agggggctca ctccgtttgt cctgtgcagc 29520

ttctggctat accttcacca actatggtat gaactgggtc cgtcaggccc cgggtaaggg 29580

cctggaatgg gttggatgga ttaacaccta taccggtgaa ccgacctatg ctgcggattt 29640

caaacgtcgt tttacttttt ctctggacac ctccaagagc acagcttacc tgcagatgaa 29700

cagcctgcgc gctgaggaca ctgccgtcta ttactgtgca aagtacccgc actattatgg 29760

gagcagccac tggtatttcg acgtctgggg tcaaggaacc ctggtcaccg tctcctcggg 29820

tggcggtggc tcgggcggtg gtggatctgg tggcggcgga tctgatatcc agatgaccca 29880

gtccccgagc tccctgtccg cctctgtggg cgatagggtc accatcacct gcagcgcaag 29940

tcaggatatt agcaactatt taaactggta tcaacagaaa ccaggaaaag ctccgaaagt 30000

cctgatttac ttcacctcct ctctccactc tggagtccct tctcgcttct ctggatccgg 30060

ttctgggacg gatttcactc tgaccatcag cagtctgcag ccagaagact tcgcaactta 30120

ttactgtcaa cagtatagca ccgtgccgtg gacgtttgga cagggtacca aggtggagat 30180

caaacgacat catcaccacc accattaagc tagcttgact gactgagata cagcgtacct 30240

tcagctcaca gacatgataa gatacattga tgagtttgga caaaccacaa ctagaatgca 30300

gtgaaaaaaa tgctttattt gtgaaatttg tgatgctatt gctttatttg taaccattat 30360

aagctgcaat aaacaagtta acaacaacaa ttgcattcat tttatgtttc aggttcaggg 30420

ggaggtgtgg gaggtttttt aaagcaagta aaacctctac aaatgtggta gtcgtcagct 30480

atcctgcagg aacttgttta tttgaaaatc aattcacaaa atccgagtag ttattttgcc 30540

tccccccttcc catttaacag aatacaccaa tctctcccca cgcacagctt taaacatttg 30600

gataccatta gatatagaca tggttttaga ttccacattc caaacagttt cagagcgagc 30660

caatctgggg tcagtgatag ataaaaatcc atcgggatag tcttttaaag cgctttcaca 30720

gtccaactgc tgcggatgcg actccggagt ctggatcacg gtcatctgga agaagaacga 30780

tgggaatcat aatccgaaaa cggtatcgga cgattgtgtc tcatcaaacc cacaagcagc 30840

cgctgtctgc gtcgctccgt gcgactgctg tttatgggat cagggtccac agtgtcctga 30900

agcatgattt taatagccct taacatcaac tttctggtgc gatgcgcgca gcaacgcatt 30960

ctgatttcac tcaaatcttt gcagtaggta caacacatta ttacaatatt gtttaataaa 31020

ccataattaa aagcgctcca gccaaaactc atatctgata taatcgcccc tgcatgacca 31080

tcataccaaa gtttaatata aattaaatga cgttccctca aaaacacact acccacatac 31140

atgatctctt ttggcatgtg catattaaca atctgtctgt accatggaca acgttggtta 31200

atcatgcaac ccaatataac cttccggaac cacactgcca acaccgctcc cccagccatg 31260

cattgaagtg aaccctgctg attacaatga caatgaagaa cccaattctc tcgaccgtga 31320

atcacttgag aatgaaaaat atctatagtg gcacaacata gacataaatg catgcatctt 31380

ctcataattt ttaactcctc aggatttaga aacatatccc agggaatagg aagctcttgc 31440

agaacagtaa agctggcaga acaaggaaga ccacgaacac aacttacact atgcatagtc 31500

atagtatcac aatctggcaa cagcgggtgg tcttcagtca tagaagctcg ggtttcattt 31560

tcctcacaac gtggtaactg ggctctggtg taagggtgat gtctggcgca tgatgtcgag 31620

cgtgcgcgca accttgtcat aatggagttg cttcctgaca ttctcgtatt ttgtatagca 31680

aaacgcggcc ctggcagaac acactcttct tcgccttcta tcctgccgct tagcgtgttc 31740

cgtgtgatag ttcaagtaca accacactct taagttggtc aaaagaatgc tggcttcagt 31800

tgtaatcaaa actccatcgc atctaatcgt tctgaggaaa tcatccaagc aatgcaactg 31860

gattgtgttt caagcaggag aggagaggga agagacggaa gaaccatgtt aatttttatt 31920

ccaaacgatc tcgcagtact tcaaattgta gatcgcgcag atggcatctc tcgcccccac 31980

tgtgttggtg aaaaagcaca gctagatcaa aagaaatgcg attttcaagg tgctcaacgg 32040

tggcttccag caaagcctcc acgcgcacat ccaagaacaa aagaatacca aaagaaggag 32100

cattttctaa ctcctcaatc atcatattac attcctgcac cattcccaga taattttcag 32160

ctttccagcc ttgaattatt cgtgtcagtt cttgtggtaa atccaatcca cacattacaa 32220

acaggtcccg gagggcgccc tccaccacca ttcttaaaca caccctcata atgacaaaat 32280

atcttgctcc tgtgtcacct gtagcgaatt gagaatggca acatcaattg acatgccctt 32340

ggctctaagt tcttctttaa gttctagttg taaaaactct ctcatattat caccaaactg 32400

cttagccaga agcccccggg gaacaagagc aggggacgct acagtgcagt acaagcgcag 32460

acctccccaa ttggctccag caaaaacaag attggaataa gcatattggg aaccgccagt 32520

aatatcatcg aagttgctgg aaatataatc aggcagagtt tcttgtaaaa attgaataaa 32580

agaaaaattt gccaaaaaaa cattcaaaac ctctgggatg caaatgcaat aggttaccgc 32640

gctgcgctcc aacattgtta gttttgaatt agtctgcaaa aataaaaaaa aaaacaagcg 32700

tcatatcata gtagcctgac gaacagatgg ataaatcagt ctttccatca caagacaagc 32760

cacagggtct ccagctcgac cctcgtaaaa cctgtcatca tgattaaaca acagcaccga 32820

aagttcctcg cggtgaccag catgaataat tcttgatgaa gcatacaatc cagacatgtt 32880

agcatcagtt aacgagaaaa aacagccaac atagcctttg ggtataatta tgcttaatcg 32940

taagtatagc aaagccaccc ctcgcggata caaagtaaaa ggcacaggag aataaaaaat 33000

ataattattt ctctgctgct gttcaggcaa cgtcgccccc ggtccctcta aatacacata 33060

caaagcctca tcagccatgg cttaccagac aaagtacagc gggcacacaa agcacaagct 33120

ctaaagtgac tctccaacct ctccacaata tatatataca caagccctaa actgacgtaa 33180

tgggagtaaa gtgtaaaaaa tcccgccaaa cccaacacac accccgaaac tgcgtcacca 33240

gggaaaagta cagtttcact tccgcaatcc caacaggcgt aacttcctct ttctcacggt 33300

acgtgatatc ccactaactt gcaacgtcat tttcccacgg tcgcaccgcc ccttttagcc 33360

gttaacccca cagccaatca ccacacgatc cacacttttt aaaatcacct catttacata 33420

ttggcaccat tccatctata aggtatatta tatagataga 33460

<210> 19
<211> 33132
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-92 virus genome sequence

<400> 19
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctgctaa tcctttctct cttcaggcca ccatgaaata 29400

tacaagttat atcttggctt ttcagctctg catcgttttg ggttctcttg gctgttactg 29460

ccaggaccca tatgtaaaag aagcagaaaa ccttaagaaa tattttaatg caggtcattc 29520

agatgtagcg gataatggaa ctcttttctt aggcattttg aagaattgga aagaggagag 29580

tgacagaaaa ataatgcaga gccaaattgt ctccttttac ttcaaacttt ttaaaaactt 29640

taaagatgac cagagcatcc aaaagagtgt ggagaccatc aaggaagaca tgaatgtcaa 29700

gtttttcaat agcaacaaaa agaaacgaga tgacttcgaa aagctgacta attattcggt 29760

aactgacttg aatgtccaac gcaaagcaat acatgaactc atccaagtga tggctgaact 29820

gtcgccagca gctaaaacag ggaagcgaaa aaggagtcag atgctgtttc gaggtcgaag 29880

agcatcccag taagctagct tgactgactg agatacagcg taccttcagc tcacagacat 29940

gataagatac attgatgagt ttggacaaac cacaactaga atgcagtgaa aaaaatgctt 30000

tatttgtgaa atttgtgatg ctattgcttt atttgtaacc attataagct gcaataaaca 30060

agttaacaac aacaattgca ttcattttat gtttcaggtt caggggggagg tgtgggaggt 30120

tttttaaagc aagtaaaacc tctacaaatg tggtcctgca ggaacttgtt tatttgaaaa 30180

tcaattcaca aaatccgagt agttattttg cctccccctt cccatttaac agaatacacc 30240

aatctctccc cacgcacagc tttaaacatt tggataccat tagatataga catggtttta 30300

gattccacat tccaaacagt ttcagagcga gccaatctgg ggtcagtgat agataaaaat 30360

ccatcgggat agtcttttaa agcgctttca cagtccaact gctgcggatg cgactccgga 30420

gtctggatca cggtcatctg gaagaagaac gatgggaatc ataatccgaa aacggtatcg 30480

gacgattgtg tctcatcaaa cccacaagca gccgctgtct gcgtcgctcc gtgcgactgc 30540

tgtttatggg atcagggtcc acagtgtcct gaagcatgat tttaatagcc cttaacatca 30600

actttctggt gcgatgcgcg cagcaacgca ttctgatttc actcaaatct ttgcagtagg 30660

tacaacacat tattacaata ttgtttaata aaccataatt aaaagcgctc cagccaaaac 30720

tcatatctga tataatcgcc cctgcatgac catcatacca aagtttaata taaattaaat 30780

gacgttccct caaaaacaca ctacccacat acatgatctc ttttggcatg tgcatattaa 30840

caatctgtct gtaccatgga caacgttggt taatcatgca acccaatata accttccgga 30900

accacactgc caacaccgct cccccagcca tgcattgaag tgaaccctgc tgattacaat 30960

gacaatgaag aacccaattc tctcgaccgt gaatcacttg agaatgaaaa atatctatag 31020

tggcacaaca tagacataaa tgcatgcatc ttctcataat ttttaactcc tcaggattta 31080

gaaacatatc ccagggaata ggaagctctt gcagaacagt aaagctggca gaacaaggaa 31140

gaccacgaac acaacttaca ctatgcatag tcatagtatc acaatctggc aacagcgggt 31200

ggtcttcagt catagaagct cgggtttcat tttcctcaca acgtggtaac tgggctctgg 31260

tgtaagggtg atgtctggcg catgatgtcg agcgtgcgcg caaccttgtc ataatggagt 31320

tgcttcctga cattctcgta ttttgtatag caaaacgcgg ccctggcaga acacactctt 31380

cttcgccttc tatcctgccg cttagcgtgt tccgtgtgat agttcaagta caaccacact 31440

cttaagttgg tcaaaagaat gctggcttca gttgtaatca aaactccatc gcatctaatc 31500

gttctgagga aatcatccaa gcaatgcaac tggattgtgt ttcaagcagg agaggagagg 31560

gaagagacgg aagaaccatg ttaattttta ttccaaacga tctcgcagta cttcaaattg 31620

tagatcgcgc agatggcatc tctcgccccc actgtgttgg tgaaaaagca cagctagatc 31680

aaaagaaatg cgattttcaa ggtgctcaac ggtggcttcc agcaaagcct ccacgcgcac 31740

atccaagaac aaaagaatac caaaagaagg agcattttct aactcctcaa tcatcatatt 31800

acattcctgc accattccca gataattttc agctttccag ccttgaatta ttcgtgtcag 31860

ttcttgtggt aaatccaatc cacacattac aaacaggtcc cggagggcgc cctccaccac 31920

cattcttaaa cacaccctca taatgacaaa atatcttgct cctgtgtcac ctgtagcgaa 31980

ttgagaatgg caacatcaat tgacatgccc ttggctctaa gttcttcttt aagttctagt 32040

tgtaaaaact ctctcatatt atcaccaaac tgcttagcca gaagcccccc gggaacaaga 32100

gcaggggacg ctacagtgca gtacaagcgc agacctcccc aattggctcc agcaaaaaca 32160

agattggaat aagcatattg ggaaccgcca gtaatatcat cgaagttgct ggaaatataa 32220

tcaggcagag tttcttgtaa aaattgaata aaagaaaaat ttgccaaaaa aacattcaaa 32280

acctctggga tgcaaatgca ataggttacc gcgctgcgct ccaacattgt tagttttgaa 32340

ttagtctgca aaaataaaaa aaaaaacaag cgtcatatca tagtagcctg acgaacagat 32400

ggataaatca gtctttccat cacaagacaa gccacagggt ctccagctcg accctcgtaa 32460

aacctgtcat catgattaaa caacagcacc gaaagttcct cgcggtgacc agcatgaata 32520

attcttgatg aagcatacaa tccagacatg ttagcatcag ttaacgagaa aaaacagcca 32580

acatagcctt tgggtataat tatgcttaat cgtaagtata gcaaagccac ccctcgcgga 32640

tacaaagtaa aaggcacagg agaataaaaa atataattat ttctctgctg ctgttcaggc 32700

aacgtcgccc ccggtccctc taaatacaca tacaaagcct catcagccat ggcttaccag 32760

acaaagtaca gcgggcacac aaagcacaag ctctaaagtg actctccaac ctctccacaa 32820

tatatatata cacaagccct aaactgacgt aatgggagta aagtgtaaaa aatcccgcca 32880

aacccaacac acaccccgaa actgcgtcac cagggaaaag tacagtttca cttccgcaat 32940

cccaacaggc gtaacttcct ctttctcacg gtacgtgata tcccactaac ttgcaacgtc 33000

attttcccac ggtcgcaccg ccccttttag ccgttaaccc cacagccaat caccacacga 33060

tccacacttt ttaaaatcac ctcatttaca tattggcacc attccatcta taaggtatat 33120

tatatagata ga 33132

<210> 20
<211> 33765
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-95 virus genome sequence

<400> 20
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac caccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct agtaatcaat tacggggtca 29400

ttagttcata gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct 29460

ggctgaccgc ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta 29520

acgccaatag ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac 29580

ttggcagtac atcaagtgta tcatatgcca agtacgcccc ctattgacgt caatgacggt 29640

aaatggcccg cctggcatta tgcccagtac atgaccttat gggactttcc tacttggcag 29700

tacatctacg tattagtcat cgctattacc atgctgatgc ggttttggca gtacatcaat 29760

gggcgtggat agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat 29820

gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc 29880

ccattgacgc aaatgggcgg taggcgtgta cggtgggagg tctatataag cagagctggt 29940

ttagtgaacc gtcagatcag atctttgtcg atcctaccat ccactcgaca cacccgccag 30000

cggccgccca ccatgaaata tacaagttat atcttggctt ttcagctctg catcgttttg 30060

ggttctcttg gctgttactg ccaggaccca tatgtaaaag aagcagaaaa ccttaagaaa 30120

tattttaatg caggtcattc agatgtagcg gataatggaa ctcttttctt aggcattttg 30180

aagaattgga aagaggagag tgacagaaaa ataatgcaga gccaaattgt ctccttttac 30240

ttcaaacttt ttaaaaactt taaagatgac cagagcatcc aaaagagtgt ggagaccatc 30300

aaggaagaca tgaatgtcaa gtttttcaat agcaacaaaa agaaacgaga tgacttcgaa 30360

aagctgacta attattcggt aactgacttg aatgtccaac gcaaagcaat acatgaactc 30420

atccaagtga tggctgaact gtcgccagca gctaaaacag ggaagcgaaa aaggagtcag 30480

atgctgtttc gaggtcgaag agcatcccag taagctagct tgactgactg agatacagcg 30540

taccttcagc tcacagacat gataagatac attgatgagt ttggacaaac cacaactaga 30600

atgcagtgaa aaaaatgctt tatttgtgaa atttgtgatg ctattgcttt atttgtaacc 30660

attataagct gcaataaaca agttaacaac aacaattgca ttcattttat gtttcaggtt 30720

caggggggagg tgtgggaggt tttttaaagc aagtaaaacc tctacaaatg tggtagtcgt 30780

cagctatcct gcaggaactt gtttatttga aaatcaattc acaaaatccg agtagttatt 30840

ttgcctcccc cttcccattt aacagaatac accaatctct ccccacgcac agctttaaac 30900

atttggatac cattagatat agacatggtt ttagattcca cattccaaac agtttcagag 30960

cgagccaatc tggggtcagt gatagataaa aatccatcgg gatagtcttt taaagcgctt 31020

tcacagtcca actgctgcgg atgcgactcc ggagtctgga tcacggtcat ctggaagaag 31080

aacgatggga atcataatcc gaaaacggta tcggacgatt gtgtctcatc aaacccacaa 31140

gcagccgctg tctgcgtcgc tccgtgcgac tgctgtttat gggatcaggg tccacagtgt 31200

cctgaagcat gattttaata gcccttaaca tcaactttct ggtgcgatgc gcgcagcaac 31260

gcattctgat ttcactcaaa tctttgcagt aggtacaaca cattattaca atattgttta 31320

ataaaccata attaaaagcg ctccagccaa aactcatatc tgatataatc gcccctgcat 31380

gaccatcata ccaaagttta atataaatta aatgacgttc cctcaaaaac acactaccca 31440

catacatgat ctcttttggc atgtgcatat taacaatctg tctgtaccat ggacaacgtt 31500

ggttaatcat gcaacccaat ataaccttcc ggaaccacac tgccaacacc gctcccccag 31560

ccatgcattg aagtgaaccc tgctgattac aatgacaatg aagaacccaa ttctctcgac 31620

cgtgaatcac ttgagaatga aaaatatcta tagtggcaca acatagacat aaatgcatgc 31680

atcttctcat aatttttaac tcctcaggat ttagaaacat atcccaggga ataggaagct 31740

cttgcagaac agtaaagctg gcagaacaag gaagaccacg aacacaactt acactatgca 31800

tagtcatagt atcacaatct ggcaacagcg ggtggtcttc agtcatagaa gctcgggttt 31860

cattttcctc acaacgtggt aactgggctc tggtgtaagg gtgatgtctg gcgcatgatg 31920

tcgagcgtgc gcgcaacctt gtcataatgg agttgcttcc tgacattctc gtattttgta 31980

tagcaaaacg cggccctggc agaacacact cttcttcgcc ttctatcctg ccgcttagcg 32040

tgttccgtgt gatagttcaa gtacaaccac actcttaagt tggtcaaaag aatgctggct 32100

tcagttgtaa tcaaaactcc atcgcatcta atcgttctga ggaaatcatc caagcaatgc 32160

aactggattg tgtttcaagc aggagaggag agggaagaga cggaagaacc atgttaattt 32220

ttattccaaa cgatctcgca gtacttcaaa ttgtagatcg cgcagatggc atctctcgcc 32280

cccactgtgt tggtgaaaaa gcacagctag atcaaaagaa atgcgatttt caaggtgctc 32340

aacggtggct tccagcaaag cctccacgcg cacatccaag aacaaaagaa taccaaaaga 32400

aggagcattt tctaactcct caatcatcat attacattcc tgcaccattc ccagataatt 32460

ttcagctttc cagccttgaa ttattcgtgt cagttcttgt ggtaaatcca atccacacat 32520

tacaaacagg tcccggaggg cgccctccac caccattctt aaacacaccc tcataatgac 32580

aaaatatctt gctcctgtgt cacctgtagc gaattgagaa tggcaacatc aattgacatg 32640

cccttggctc taagttcttc tttaagttct agttgtaaaa actctctcat attatcacca 32700

aactgcttag ccagaagccc cccgggaaca agagcagggg acgctacagt gcagtacaag 32760

cgcagacctc cccaattggc tccagcaaaa acaagattgg aataagcata ttgggaaccg 32820

ccagtaatat catcgaagtt gctggaaata taatcaggca gagtttcttg taaaaattga 32880

ataaaagaaa aatttgccaa aaaaacattc aaaacctctg ggatgcaaat gcaataggtt 32940

accgcgctgc gctccaacat tgttagtttt gaattagtct gcaaaaataa aaaaaaaaac 33000

aagcgtcata tcatagtagc ctgacgaaca gatggataaa tcagtctttc catcacaaga 33060

caagccacag ggtctccagc tcgaccctcg taaaacctgt catcatgatt aaacaacagc 33120

accgaaagtt cctcgcggtg accagcatga ataattcttg atgaagcata caatccagac 33180

atgttagcat cagttaacga gaaaaaacag ccaacatagc ctttgggtat aattatgctt 33240

aatcgtaagt atagcaaagc caccctcgc ggatacaaag taaaaggcac aggagaataa 33300

aaaatataat tatttctctg ctgctgttca ggcaacgtcg cccccggtcc ctctaaatac 33360

acatacaaag cctcatcagc catggcttac cagacaaagt acagcgggca cacaaagcac 33420

aagctctaaa gtgactctcc aacctctcca caatatatat atacacaagc cctaaactga 33480

cgtaatggga gtaaagtgta aaaaatcccg ccaaacccaa cacacacccc gaaactgcgt 33540

caccagggaa aagtacagtt tcacttccgc aatcccaaca ggcgtaactt cctctttctc 33600

acggtacgtg atatcccact aacttgcaac gtcattttcc cacggtcgca ccgccccttt 33660

tagccgttaa ccccacagcc aatcaccaca cgatccacac tttttaaaat cacctcattt 33720

acatattggc accattccat ctataaggta tattatatag ataga 33765

<210> 21
<211> 33199
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-96 virus genome sequence

<400> 21
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac ctttaaaggt ttgtggggag 12480

tgcatgcccc ggtaggagaa agagcaaccg tgtctagctt gttaactccg aactcccgcc 12540

tattattact gttggtagct cctttcaccg acagcggtag catcgaccgt aattcctatt 12600

tgggttacct actaaacctg tatcgcgaag ccatagggca aagtcaggtg gacgagcaga 12660

cctatcaaga aattacccaa gtcagtcgcg ctttgggaca ggaagacact ggcagtttgg 12720

aagccactct gaacttcttg cttaccaatc ggtctcaaaa gatccctcct caatatgctc 12780

ttactgcgga ggaggagagg atccttagat atgtgcagca gagcgtggga ttgtttctga 12840

tgcaagaggg ggcaactccg actgcagcac tggacatgac agcgcgaaat atggagccca 12900

gcatgtatgc cagtaaccga cctttcatta acaaactgct ggactacttg cacagagctg 12960

ccgctatgaa ctctgattat ttcaccaatg ccatcttaaa cccgcactgg ctgcccccac 13020

ctggtttcta cacgggcgaa tatgacatgc ccgaccctaa tgacggattt ctgtgggacg 13080

acgtggacag cgatgttttt tcacctcttt ctgatcatcg cacgtggaaa aaggaaggcg 13140

gcgatagaat gcattcttct gcatcgctgt ccggggtcat gggtgctacc gcggctgagc 13200

ccgagtctgc aagtcctttt cctagtctac ccttttctct acacagtgta cgtagcagcg 13260

aagtgggtag aataagtcgc ccgagtttaa tgggcgaaga ggagtatcta aacgattcct 13320

tgctcagacc ggcaagagaa aaaaatttcc caaacaatgg aatagaaagt ttggtggata 13380

aaatgagtag atggaagact tatgctcagg atcacagaga cgagcctggg atcatgggga 13440

ttacaagtag agcgagccgt agacgccagc gccatgacag acagaggggt cttgtgtggg 13500

acgatgagga ttcggccgat gatagcagcg tgctggactt gggtgggaga ggaaggggca 13560

acccgtttgc tcatttgcgc cctcgcttgg gtggtatgtt gtaaaaaaaa ataaaaaaaa 13620

aactcaccaa ggccatggcg acgagcgtac gttcgttctt ctttattatc tgtgtctagt 13680

ataatgaggc gagtcgtgct aggcggagcg gtggtgtatc cggagggtcc tcctccttcg 13740

tacgagagcg tgatgcagca gcagcaggcg acggcggtga tgcaatcccc actggaggct 13800

ccctttgtgc ctccgcgata cctggcacct acggagggca gaaacagcat tcgttattcg 13860

gaactggcac ctcagtacga taccaccagg ttgtatctgg tggacaacaa gtcggcggac 13920

attgcttctc tgaactatca gaatgaccac agcaacttct tgaccacggt ggtgcaaaac 13980

aatgacttta cccctacgga agccagcacc cagaccatta actttgatga acgatcgcgg 14040

tggggcggtc agctaaagac catcatgcat actaacatgc caaacgtgaa cgagtatatg 14100

tttagtaaca agttcaaagc gcgtgtgatg gtgtccagaa aacctcccga cggtgctgca 14160

gttggggata cttatgatca caagcaggat attttgaaat atgagtggtt cgagtttact 14220

ttgccagaag gcaacttttc agttactatg actattgatt tgatgaacaa tgccatcata 14280

gataattact tgaaagtggg tagacagaat ggagtgcttg aaagtgacat tggtgttaag 14340

ttcgacacca ggaacttcaa gctgggatgg gatcccgaaa ccaagttgat catgcctgga 14400

gtgtatacgt atgaagcctt ccatcctgac attgtcttac tgcctggctg cggagtggat 14460

tttaccgaga gtcgtttgag caaccttctt ggtatcagaa aaaaacagcc atttcaagag 14520

ggttttaaga ttttgtatga agatttagaa ggtggtaata ttccggccct cttggatgta 14580

gatgcctatg agaacagtaa gaaagaacaa aaagccaaaa tagaagctgc tacagctgct 14640

gcagaagcta aggcaaacat agttgccagc gactctacaa gggttgctaa cgctggagag 14700

gtcagaggag acaattttgc gccaacacct gttccgactg cagaatcatt attggccgat 14760

gtgtctgaag gaacggacgt gaaactcact attcaacctg tagaaaaaga tagtaagaat 14820

agaagctata atgtgttgga agacaaaatc aacacagcct atcgcagttg gtatctttcg 14880

tacaattatg gcgatcccga aaaaggagtg cgttcctgga cattgctcac cacctcagat 14940

gtcacctgcg gagcagagca ggtctactgg tcgcttccag acatgatgaa ggatcctgtc 15000

actttccgct ccactagaca agtcagtaac taccctgtgg tgggtgcaga gcttatgccc 15060

gtcttctcaa agagcttcta caacgaacaa gctgtgtact cccagcagct ccgccagtcc 15120

acctcgctta cgcacgtctt caaccgcttt cctgagaacc agattttaat ccgtccgccg 15180

gcgcccacca ttaccaccgt cagtgaaaac gttcctgctc tcacagatca cgggaccctg 15240

ccgttgcgca gcagtatccg gggagtccaa cgtgtgaccg ttactgacgc cagacgccgc 15300

acctgtccct acgtgtacaa ggcactgggc atagtcgcac cgcgcgtcct ttcaagccgc 15360

actttctaaa aaaaaaaaaa atgtccattc ttatctcgcc cagtaataac accggttggg 15420

gtctgcgcgc tccaagcaag atgtacggag gcgcacgcaa acgttctacc caacatcctg 15480

tccgtgttcg cggacatttt cgcgctccat ggggcgccct caagggccgc actcgcgttc 15540

gaaccaccgt cgatgatgta atcgatcagg tggttgccga cgcccgtaat tatactccta 15600

ctgcgcctac atctactgtg gatgcagtta ttgacagtgt agtggctgac gctcgcaact 15660

atgctcgacg taagagccgg cgaaggcgca ttgccagacg ccaccgagct accactgcca 15720

tgcgagccgc aagagctctg ctacgaagag ctagacgcgt ggggcgaaga gccatgctta 15780

gggcggccag acgtgcagct tcgggcgcca gcgccggcag gtcccgcagg caagcagccg 15840

ctgtcgcagc ggcgactatt gccgacatgg cccaatcgcg aagaggcaat gtatactggg 15900

tgcgtgacgc tgccaccggt caacgtgtac ccgtgcgcac ccgtcccccc cgcacttaga 15960

agatactgag cagtctccga tgttgtgtcc cagcggcgag gatgtccaag cgcaaataca 16020

aggaagaaat gctgcaggtt atcgcacctg aagtctacgg ccaaccgttg aaggatgaaa 16080

aaaaaccccg caaaatcaag cgggttaaaa aggacaaaaa agaagaggaa gatggcgatg 16140

atgggctggc ggagtttgtg cgcgagtttg ccccacggcg acgcgtgcaa tggcgtgggc 16200

gcaaagttcg acatgtgttg agacctggaa cttcggtggt ctttacaccc ggcgagcgtt 16260

caagcgctac ttttaagcgt tcctatgatg aggtgtacgg ggatgatgat attcttgagc 16320

aggcggctga ccgattaggc gagtttgctt atggcaagcg tagtagaata acttccaagg 16380

atgagacagt gtcgataccc ttggatcatg gaaatcccac ccctagtctt aaaccggtca 16440

ctttgcagca agtgttaccc gtaactccgc gaacaggtgt taaacgcgaa ggtgaagatt 16500

tgtatcccac tatgcaactg atggtaccca aacgccagaa gttggaggac gttttggaga 16560

aagtaaaagt ggatccagat attcaacctg aggttaaagt gagacccatt aagcaggtag 16620

cgcctggtct gggggtacaa actgtagaca ttaagattcc cactgaaagt atggaagtgc 16680

aaactgaacc cgcaaagcct actgccacct ccactgaagt gcaaacggat ccatggatgc 16740

ccatgcctat tacaactgac gccgccggtc ccactcgaag atcccgacga aagtacggtc 16800

cagcaagtct gttgatgccc aattatgttg tacacccatc tattattcct actcctggtt 16860

accgaggcac tcgctactat cgcagccgaa acagtacctc ccgccgtcgc cgcaagacac 16920

ctgcaaatcg cagtcgtcgc cgtagacgca caagcaaacc gactcccggc gccctggtgc 16980

ggcaagtgta ccgcaatggt agtgcggaac ctttgacact gccgcgtgcg cgttaccatc 17040

cgagtatcat cacttaatca atgttgccgc tgcctccttg cagatatggc cctcacttgt 17100

cgccttcgcg ttcccatcac tggttaccga ggaagaaact cgcgccgtag aagagggatg 17160

ttgggacgcg gaatgcgacg ctacaggcga cggcgtgcta tccgcaagca attgcggggt 17220

ggtttttac cagccttaat tccaattatc gctgctgcaa ttggcgcgat accaggcata 17280

gcttccgtgg cggttcaggc ctcgcaacga cattgacatt ggaaaaaaac gtataaataa 17340

aaaaaaaaaa atacaatgga ctctgacact cctggtcctg tgactatgtt ttcttagaga 17400

tggaagacat caatttttca tccttggctc cgcgacacgg cacgaagccg tacatgggca 17460

cctggagcga catcggcacg agccaactga acgggggcgc cttcaattgg agcagtatct 17520

ggagcgggct taaaaatttt ggctcaacca taaaaacata cgggaacaaa gcttggaaca 17580

gcagtacagg acaggcgctt agaaataaac ttaaagacca gaacttccaa caaaaagtag 17640

tcgatgggat agcttccggc atcaatggag tggtagattt ggctaaccag gctgtgcaga 17700

aaaagataaa cagtcgtttg gacccgccgc cagcaacccc aggtgaaatg caagtggagg 17760

aagaaattcc tccgccagaa aaacgaggcg acaagcgtcc gcgtcccgat ttggaagaga 17820

cgctggtgac gcgcgtagat gaaccgcctt cttatgagga agcaacgaag cttggaatgc 17880

ccaccactag accgatagcc ccaatggcca ccggggtgat gaaaccttct cagttgcatc 17940

gacccgtcac cttggatttg ccccctcccc ctgctgctac tgctgtaccc gcttctaagc 18000

ctgtcgctgc cccgaaacca gtcgccgtag ccaggtcacg tcccgggggc gctcctcgtc 18060

caaatgcgca ctggcaaaat actctgaaca gcatcgtggg tctaggcgtg caaagtgtaa 18120

aacgccgtcg ctgcttttaa ttaaatatgg agtagcgctt aacttgccta tctgtgtata 18180

tgtgtcatta cacgccgtca cagcagcaga ggaaaaaagg aagaggtcgt gcgtcgacgc 18240

tgagttactt tcaagatggc caccccatcg atgctgcccc aatgggcata catgcacatc 18300

gccggacagg atgcttcgga gtacctgagt ccgggtctgg tgcagttcgc ccgcgccaca 18360

gacacctact tcaatctggg aaataagttt agaaatccca ccgtagcgcc gacccacgat 18420

gtgaccaccg accgtagcca gcggctcatg ttgcgcttcg tgcccgttga ccgggaggac 18480

aatacatact cttacaaagt gcggtacacc ctggccgtgg gcgacaacag agtgctggat 18540

atggccagca cgttctttga cattaggggt gtgttggaca gaggtcccag tttcaaaccc 18600

tattctggta cggcttacaa ctccctggct cctaaaggcg ctccaaatac atctcagtgg 18660

attgcagaag gtgtaaaaaa tacaactggt gaggaacacg taacagaaga ggaaaccaat 18720

actactactt acacttttgg caatgctcct gtaaaagctg aagctgaaat tacaaaagaa 18780

ggactcccag taggtttgga agtttcagat gaagaaagta aaccgattta tgctgataaa 18840

acatatcagc cagaacctca gctgggagat gaaacttgga ctgaccttga tggaaaaacc 18900

gaaaagtatg gaggcagggc tctcaaaccc gatactaaga tgaaaccatg ctacgggtcc 18960

tttgccaaac ctactaatgt gaaaggcggt caggcaaaac aaaaaacaac ggagcagcca 19020

aatcagaaag tcgaatatga tatcgacatg gagtttttg atgcggcatc gcagaaaaca 19080

aacttaagtc ctaaaattgt catgtatgca gaaaatgtaa atttggaaac tccagacact 19140

catgtagtgt acaaacctgg aacagaagac acaagttccg aagctaattt gggacaacaa 19200

tctatgccca acagacccaa ctacattggc ttcagagata actttattgg acttatgtac 19260

tataacagta ctggtaacat gggggtgctg gctggtcaag cgtctcagtt aaatgcagtg 19320

gttgacttgc aggacagaaa cacagaactt tcttaccaac tcttgcttga ctctctgggc 19380

gacagaacca gatactttag catgtggaat caggctgtgg acagttatga tcctgatgta 19440

cgtgttattg aaaatcatgg tgtggaagat gaacttccca actactgttt tccactggac 19500

ggcataggtg ttccaacaac cagttacaaa tcaatagttc caaatggaga caatgcgcct 19560

aattggaagg aacctgaagt aaatggaaca agtgagatcg gacagggtaa tttgtttgcc 19620

atggaaatta accttcaagc caatctatgg cgaagtttcc tttattccaa tgtggctcta 19680

tatctcccag actcgtacaa atacaccccg tccaatgtca ctcttccaga aaacaaaaac 19740

acctacgact acatgaacgg gcgggtggtg ccgccatctc tagtagacac ctatgtgaac 19800

attggtgcca ggtggtctct ggatgccatg gacaatgtca acccattcaa ccaccaccgt 19860

aacgctggct tgcgttaccg atccatgctt ctgggtaacg gacgttatgt gcctttccac 19920

atacaagtgc ctcaaaaatt cttcgctgtt aaaaacctgc tgcttctccc aggctcctac 19980

acttatgagt ggaactttag gaaggatgtg aacatggttc tacagagttc cctcggtaac 20040

gacctgcggg tagatggcgc cagcatcagt ttcacgagca tcaacctcta tgctactttt 20100

ttccccatgg ctcacaacac cgcttccacc cttgaagcca tgctgcggaa tgacaccaat 20160

gatcagtcat tcaacgacta cctatctgca gctaacatgc tctaccccat tcctgccaat 20220

gcaaccaata ttcccatttc cattccttct cgcaactggg cggctttcag aggctggtca 20280

tttaccagac tgaaaaccaa agaaactccc tctttggggt ctggatttga cccctacttt 20340

gtctattctg gttctattcc ctacctggat ggtaccttct acctgaacca cacttttaag 20400

aaggtttcca tcatgtttga ctcttcagtg agctggcctg gaaatgacag gttactatct 20460

cctaacgaat ttgaaataaa gcgcactgtg gatggcgaag gctacaacgt agcccaatgc 20520

aacatgacca aagactggtt cttggtacag atgctcgcca actacaacat cggctatcag 20580

ggcttctaca ttccagaagg atacaaagat cgcatgtatt catttttcag aaacttccag 20640

cccatgagca ggcaggtggt tgatgaggtc aattacaaag acttcaaggc cgtcgccata 20700

ccctaccaac acaacaactc tggctttgtg ggttacatgg ctccgaccat gcgccaaggt 20760

caaccctatc ccgctaacta tccctatcca ctcattggaa caactgccgt aaatagtgtt 20820

acgcagaaaa agttcttgtg tgacagaacc atgtggcgca taccgttctc gagcaacttc 20880

atgtctatgg gggcccttac agacttggga cagaatatgc tctatgccaa ctcagctcat 20940

gctctggaca tgacctttga ggtggatccc atggatgagc ccaccctgct ttatcttctc 21000

ttcgaagttt tcgacgtggt cagagtgcat cagccacacc gcggcatcat cgaggcagtc 21060

tacctgcgta caccgttctc ggccggtaac gctaccacgt aagaagcttc ttgcttcttg 21120

caaatagcag ctgcaaccat ggcctgcgga tcccaaaacg gctccagcga gcaagagctc 21180

agagccattg tccaagacct gggttgcgga ccctattttt tgggaaccta cgataagcgc 21240

ttcccggggt tcatggcccc cgataagctc gcctgtgcca ttgtaaatac ggccggacgt 21300

gagacggggg gagagcactg gttggctttc ggttggaacc cacgttctaa cacctgctac 21360

ctttttgatc cttttggatt ctcggatgat cgtctcaaac agatttacca gtttgaatat 21420

gagggtctcc tgcgccgcag cgctcttgct accaaggacc gctgtattac gctggaaaaa 21480

tctacccaga ccgtgcaggg tccccgttct gccgcctgcg gacttttctg ctgcatgttc 21540

cttcacgcct ttgtgcactg gcctgaccgt cccatggacg gaaaccccac catgaaattg 21600

ctaactggag tgccaaacaa catgcttcat tctcctaaag tccagcccac cctgtgtgac 21660

aatcaaaaag cactctacca ttttcttaat acccattcgc cttattttcg ctcccatcgt 21720

acacacatcg aaagggccac tgcgttcgac cgtatggatg ttcaataatg actcatgtaa 21780

acaacgtgtt caataaacat cactttattt ttttacatgt atcaaggctc tgcattactt 21840

atttatttac aagtcgaatg ggttctgacg agaatcagaa tgacccgcag gcagtgatac 21900

gttgcggaac tgatacttgg gttgccactt gaattcggga atcaccaact tgggaaccgg 21960

tatatcgggc aggatgtcac tccacagctt tctggtcagc tgcaaagctc caagcaggtc 22020

aggagccgaa atcttgaaat cacaattagg accagtgctt tgagcgcgag agttgcggta 22080

caccggattg cagcactgaa acaccatcag cgacggatgt ctcacgcttg ccagcacggt 22140

gggatctgca atcatgccca catccagatc ttcagcattg gcaatgctga acggggtcat 22200

cttgcaggtc tgcctaccca tggcgggcac ccaattaggc ttgtggttgc aatcgcagtg 22260

caggggggatc agtatcatct tggcctgatc ctgtctgatt cctggataca cggctctcat 22320

gaaagcatca tattgcttga aagcctgctg ggctttacta ccctcggtat aaaacatccc 22380

gcaggacctg ctcgaaaact ggttagctgc acagccggca tcattcacac agcagcgggc 22440

gtcattgtta gctatttgca ccacacttct gccccagcgg ttttgggtga ttttggttcg 22500

ctcgggattc tcctttaagg ctcgttgtcc gttctcgctg gccacatcca tctcgataat 22560

ctgctccttc tgaatcataa tattgccatg caggcacttc agcttgccct cataatcatt 22620

gcagccatga ggccacaacg cacagcctgt acattcccaa ttatggtggg cgatctgaga 22680

aaaagaatgt atcattccct gcagaaatct tcccatcatc gtgctcagtg tcttgtgact 22740

agtgaaagtt aactggatgc ctcggtgctc ctcgtttacg tactggtgac agatgcgctt 22800

gtattgttcg tgttgctcag gcattagttt aaaagaggtt ctaagttcgt tatccagcct 22860

gtacttctcc atcagcagac acatcacttc catgcctttc tcccaagcag acaccagggg 22920

caagctaatc ggattcttaa cagtgcaggc agcagctcct ttagccagag ggtcatcttt 22980

agcgatcttc tcaatgcttc ttttgccatc cttctcaacg atgcgcacgg gcgggtagct 23040

gaaacccact gctacaagtt gcgcctcttc tctttcttct tcgctgtctt gactgatgtc 23100

ttgcatgggg atatgtttgg tcttccttgg cttctttttg gggggtatcg gaggaggagg 23160

actgtcgctc cgttccggag acagggagga ttgtgacgtt tcgctcacca ttaccaactg 23220

actgtcggta gaagaacctg accccacacg gcgacaggtg tttctcttcg ggggcagagg 23280

tggaggcgat tgcgaagggc tgcggtccga cctggaaggc ggatgactgg cagaacccct 23340

tccgcgttcg ggggtgtgct ccctgtggcg gtcgcttaac tgatttcctt cgcggctggc 23400

cattgtgttc tcctaggcag agaaacaaca gacatggaaa ctcagccatt gctgtcaaca 23460

tcgccacgag tgccatcaca tctcgtcctc agcgacgagg aaaaggagca gagcttaagc 23520

attccaccgc ccagtcctgc caccacctct accctagaag ataaggaggt cgacgcatct 23580

catgacatgc agaataaaaa agcgaaagag tctgagacag acatcgagca agacccgggc 23640

tatgtgacac cggtggaaca cgaggaagag ttgaaacgct ttctagagag agaggatgaa 23700

aactgcccaa aacaacgagc agataactat caccaagatg ctggaaatag ggatcagaac 23760

accgactacc tcatagggct tgacggggaa gacgcgctcc ttaaacatct agcaagacag 23820

tcgctcatag tcaaggatgc attattggac agaactgaag tgcccatcag tgtggaagag 23880

ctcagccgcg cctacgagct taacctcttt tcacctcgta ctccccccaa acgtcagcca 23940

aacggcacct gcgagccaaa tcctcgctta aacttttatc cagcttttgc tgtgccagaa 24000

gtactggcta cctatcacat ctttttttaaa aatcaaaaaa ttccagtctc ctgccgcgct 24060

aatcgcaccc gcgccgatgc cctactcaat ctgggacctg gttcacgctt acctgatata 24120

gcttccttgg aagaggttcc aaagatcttc gagggtctgg gcaataatga gactcgggcc 24180

gcaaatgctc tgcaaaaggg agaaaatggc atggatgagc atcacagcgt tctggtggaa 24240

ttggaaggcg ataatgccag actcgcagta ctcaagcgaa gcatcgaggt cacacacttc 24300

gcatatcccg ctgtcaacct gccccctaaa gtcatgacgg cggtcatgga ccagttactc 24360

attaagcgcg caagtcccct ttcagaagac atgcatgacc cagatgcctg tgatgagggt 24420

aaaccagtgg tcagtgatga gcagctaacc cgatggctgg gcaccgactc tcccagggat 24480

ttggaagagc gtcgcaagct tatgatggcc gtggtgctgg ttaccgtaga actagagtgt 24540

ctccgacgtt tctttaccga ttcagaaacc ttgcgcaaac tcgaagagaa tctgcactac 24600

acttttagac acggctttgt gcggcaggca tgcaagatat ctaacgtgga actcaccaac 24660

ctggtttcct acatgggtat tctgcatgag aatcgcctag gacaaagcgt gctgcacagc 24720

accctgaagg gggaagcccg ccgtgattac atccgcgatt gtgtctatct gtacctgtgc 24780

cacacgtggc aaaccggcat gggtgtatgg cagcaatgtt tagaagaaca gaacttgaaa 24840

gagcttgaca agctcttaca gaaatctctt aaggttctgt ggacagggtt cgacgagcgc 24900

accgtcgctt ccgacctggc agacctcatc ttcccagagc gtctcagggt tactttgcga 24960

aacggattgc ctgactttat gagccagagc atgcttaaca attttcgctc tttcatcctg 25020

gaacgctccg gtatcctgcc cgccacctgc tgcgcactgc cctccgactt tgtgcctctc 25080

acctaccgcg agtgcccccc gccgctatgg agtcactgct acctgttccg tctggccaac 25140

tatctctcct accactcgga tgtgatcgag gatgtgagcg gagacggctt gctggagtgt 25200

cactgccgct gcaatctgtg cacgccccac cggtccctag cttgcaaccc ccagttgatg 25260

agcgaaaccc agataatagg cacctttgaa ttgcaaggcc ccagcagcca aggcgatggg 25320

tcttctcctg ggcaaagttt aaaactgacc ccgggactgt ggacctccgc ctacttgcgc 25380

aagtttgctc cggaagatta ccacccctat gaaatcaagt tctatgagga ccaatcacag 25440

cctccaaagg ccgaactttc ggcctgcgtc atcacccagg gggcaattct ggcccaattg 25500

caagccatcc aaaaatcccg ccaagaattt ctactgaaaa agggtaaggg ggtctacctt 25560

gacccccaga ccggcgagga actcaacaca aggttccctc aggatgtccc aacgacgaga 25620

aaacaagaag ttgaaggtgc agccgccgcc cccagaagat atggaggaag attgggacag 25680

tcaggcagag gaggcggagg aggacagtct ggaggacagt ctggaggaag acagtttgga 25740

ggaggaaaac gaggaggcag aggaggtgga agaagtaacc gccgacaaac agttatcctc 25800

ggctgcggag acaagcaaca gcgctaccat ctccgctccg agtcgaggaa cccggcggcg 25860

tcccagcagt agatgggacg agaccggacg cttcccgaac ccaaccagcg cttccaagac 25920

cggtaagaag gatcggcagg gatacaagtc ctggcggggg cataagaatg ccatcatctc 25980

ctgcttgcat gagtgcgggg gcaacatatc cttcacgcgg cgctacttgc tattccacca 26040

tggggtgaac tttccgcgca atgttttgca ttactaccgt cacctccaca gcccctacta 26100

tagccagcaa atcccggcag tctcgacaga taaagacagc ggcggcgacc tccaacagaa 26160

aaccagcagc ggcagttaga aaatacacaa caagtgcagc aacaggagga ttaaagatta 26220

cagccaacga gccagcgcaa acccgagagt taagaaatcg gatctttcca accctgtatg 26280

ccatcttcca gcagagtcgg ggtcaagagc aggaactgaa aataaaaaac cgatctctgc 26340

gttcgctcac cagaagttgt ttgtatcaca agagcgaaga tcaacttcag cgcactctcg 26400

aggacgccga ggctctcttc aacaagtact gcgcgctgac tcttaaagag taggcagcga 26460

ccgcgcttat tcaaaaaagg cgggaattac atcatcctcg acatgagtaa agaaattccc 26520

acgccttaca tgtggagtta tcaaccccaa atgggattgg cggcaggcgc ctcccaggac 26580

tactccaccc gcatgaattg gctcagcgcc gggccttcta tgatttctcg agttaatgat 26640

atacgcgcct accgaaacca aatacttttg gaacagtcag ctcttaccac cacgccccgc 26700

caacacctta atcccagaaa ttggcccgcc gccctagtgt accaggaaag tcccgctccc 26760

accactgtat tacttcctcg agacgcccag gccgaagtcc aaatgactaa tgcaggtgcg 26820

cagttagctg gcggctccac cctatgtcgt cacaggcctc ggcataatat aaaacgcctg 26880

atgatcagag gccgaggtat ccagctcaac gacgagtcgg tgagctctcc gcttggtcta 26940

cgaccagacg gaatctttca gattgccggc tgcgggagat cttccttcac ccctcgtcag 27000

gctgttctga ctttggaaag ttcgtcttcg caaccccgct cgggcggaat cgggaccgtt 27060

caatttgtgg aggagtttac tccctctgtc tacttcaacc ccttctccgg atctcctggg 27120

cattacccgg acgagttcat accgaacttc gacgcgatta gcgagtcagt ggacggctac 27180

gattgatgtc tggtgacgcg gctgagctat ctcggctgcg acatctagac cactgccgcc 27240

gctttcgctg ctttgcccgg gaactcattg agttcatcta cttcgaactc cccaaggatc 27300

accctcaagg tccggcccac ggagtgcgga tttctatcga aggcaaaata gactctcgcc 27360

tgcaacgaat tttctcccag cggcccgtgc tgatcgagcg agaccaggga aacaccacgg 27420

tttccatcta ctgcatttgt aatcaccccg gattgcatga aagcctttgc tgtcttatgt 27480

gtactgagtt taataaaaac tgaattaaga ctctcctacg gactgccgct tcttcaaccc 27540

ggattttaca accagaagaa cgaaactttt cctgtcgtcc aggactctgt taacttcacc 27600

tttcctactc acaaactaga agctcaacga ctacaccgct tttccagaag cattttccct 27660

actaatacta ctttcaaaac cggaggtgag ctccaaggtc ttcctacaga aaacccttgg 27720

gtggaagcgg gccttgtagt gctaggaatt cttgcgggtg ggcttgtgat tattctttgc 27780

tacctataca caccttgctt cactttctta gtggtgttgt ggtattggtt taaaaaatgg 27840

ggcccatact agtcttgctt gttttacttt cgcttttgga accgggttct gccaattacg 27900

atccatgtct agacttcgac ccagaaaact gcacacttac ttttgcaccc gacacaagcc 27960

gcatctgtgg agttcatcgc ctctcttacg aacttggccc ccaacgacaa aaatttacct 28020

gcatggtggg aatcaacccc atagttatca cccagcaaag tggagatact aagggttgca 28080

ttcactgctc ctgcgattcc atcgagtgca cctacaccct gctgaagacc ctatgcggcc 28140

taagagacct gctaccaatg aattaaaaaa tgattaataa aaaatcactt acttgaaatc 28200

agcaataagg tctctgttga aattttctcc cagcagcacc tcacttccct cttcccaact 28260

ctggtattct aaaccccgtt cagcggcata ctttctccat actttaaagg ggatgtcaaa 28320

ttttagctcc tctcctgtac ccacaatctt catgtctttc ttcccagatg accaagagag 28380

tccggctcag tgactccttc aaccctgtct acccctatga agatgaaagc acctcccaac 28440

acccctttat aaacccaggg tttatttccc caaatggctt cacacaaagc ccaaacggag 28500

ttcttacttt aaaatgttta accccactaa caaccacagg cggatctcta cagctaaaag 28560

tgggaggggg acttacagtg gatgacacca acggtttttt gaaagaaaac ataagtgcca 28620

ccacaccact cgttaagact ggtcactcta taggtttacc actaggagcc ggattgggaa 28680

cgaatgaaaa taaactttgt atcaaattag gacaaggact tacattcaat tcaaacaaca 28740

tttgcattga tgacaatatt aacaccttat ggacaggagt caaccccacc gaagccaact 28800

gtcaaatcat gaactccagt gaatctaatg attgcaaatt aattctaaca ctagttaaaa 28860

ctggagcact agtcactgca tttgtttatg ttataggagt atctaacaat tttaatatgc 28920

taactacaca cagaaatata aattttactg cagagctgtt tttcgattct actggtaatt 28980

tactaactag actctcatcc ctcaaaactc cacttaatca taaatcagga caaaacatgg 29040

ctactggtgc cattactaat gctaaaggtt tcatgcccag cacgactgcc tatcctttca 29100

atgataattc tagagaaaaa gaaaactaca tttacggaac ttgttactac acagctagtg 29160

atcgcactgc ttttcccatt gacatatctg tcatgcttaa ccgaagagca ataaatgacg 29220

agacatcata ttgtattcgt ataacttggt cctggaacac aggagatgcc ccagaggtgc 29280

aaacctctgc tacaacccta gtcacctccc catttacctt ttactacatc agagaagacg 29340

actgacaaat aaagtttgcg atcgctgcta atcctttctc tcttcaggcc accatggcct 29400

tgacctttgc tttactggtg gccctcctgg tgctcagctg caagtcaagc tgctctgtgg 29460

gctgtgatct gcctcaaacc cacagcctgg gtagcaggag gaccttgatg ctcctggcac 29520

agatgaggag aatctctctt ttctcctgct tgaaggacag acatgacttt ggatttcccc 29580

aggaggagtt tggcaaccag ttccaaaagg ctgaaaccat ccctgtcctc catgagatga 29640

tccagcagat cttcaatctc ttcagcacaa aggactcatc tgctgcttgg gatgagaccc 29700

tcctagacaa attctacact gaactctacc agcagctgaa tgacctggaa gcctgtgtga 29760

tacagggggt gggggtgaca gagactcccc tgatgaagga ggactccatt ctggctgtga 29820

ggaaatactt ccaaagaatc actctctatc tgaaagagaa gaaatacagc ccttgtgcct 29880

gggaggttgt cagagcagaa atcatgagat ctttttcttt gtcaacaaac ttgcaagaaa 29940

gtttaagaag taaggaatga gctagcttga ctgactgaga tacagcgtac cttcagctca 30000

cagacatgat aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa 30060

aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca 30120

ataaacaagt taacaacaac aattgcattc attttatgtt tcaggttcag ggggaggtgt 30180

gggaggtttt ttaaagcaag taaaacctct acaaatgtgg tcctgcagga acttgtttat 30240

ttgaaaatca attcacaaaa tccgagtagt tattttgcct ccccccttccc atttaacaga 30300

atacaccaat ctctccccac gcacagcttt aaacatttgg ataccattag atatagacat 30360

ggttttagat tccacattcc aaacagtttc agagcgagcc aatctggggt cagtgataga 30420

taaaaatcca tcgggatagt cttttaaagc gctttcacag tccaactgct gcggatgcga 30480

ctccggagtc tggatcacgg tcatctggaa gaagaacgat gggaatcata atccgaaaac 30540

ggtatcggac gattgtgtct catcaaaccc acaagcagcc gctgtctgcg tcgctccgtg 30600

cgactgctgt ttatgggatc agggtccaca gtgtcctgaa gcatgatttt aatagccctt 30660

aacatcaact ttctggtgcg atgcgcgcag caacgcattc tgatttcact caaatctttg 30720

cagtaggtac aacacattat tacaatattg tttaataaac cataattaaa agcgctccag 30780

ccaaaactca tatctgatat aatcgcccct gcatgaccat cataccaaag tttaatataa 30840

attaaatgac gttccctcaa aaacacacta cccacataca tgatctcttt tggcatgtgc 30900

atattaacaa tctgtctgta ccatggacaa cgttggttaa tcatgcaacc caatataacc 30960

ttccggaacc acactgccaa caccgctccc ccagccatgc attgaagtga accctgctga 31020

ttacaatgac aatgaagaac ccaattctct cgaccgtgaa tcacttgaga atgaaaaata 31080

tctatagtgg cacaacatag acataaatgc atgcatcttc tcataatttt taactcctca 31140

ggatttagaa acatatccca gggaatagga agctcttgca gaacagtaaa gctggcagaa 31200

caaggaagac cacgaacaca acttacacta tgcatagtca tagtatcaca atctggcaac 31260

agcgggtggt cttcagtcat agaagctcgg gtttcatttt cctcacaacg tggtaactgg 31320

gctctggtgt aagggtgatg tctggcgcat gatgtcgagc gtgcgcgcaa ccttgtcata 31380

atggagttgc ttcctgacat tctcgtattt tgtatagcaa aacgcggccc tggcagaaca 31440

cactcttctt cgccttctat cctgccgctt agcgtgttcc gtgtgatagt tcaagtacaa 31500

ccacactctt aagttggtca aaagaatgct ggcttcagtt gtaatcaaaa ctccatcgca 31560

tctaatcgtt ctgaggaaat catccaagca atgcaactgg attgtgtttc aagcaggaga 31620

ggagagggaa gagacggaag aaccatgtta atttttattc caaacgatct cgcagtactt 31680

caaattgtag atcgcgcaga tggcatctct cgcccccact gtgttggtga aaaagcacag 31740

ctagatcaaa agaaatgcga ttttcaaggt gctcaacggt ggcttccagc aaagcctcca 31800

cgcgcacatc caagaacaaa agaataccaa aagaaggagc attttctaac tcctcaatca 31860

tcatattaca ttcctgcacc attcccagat aattttcagc tttccagcct tgaattattc 31920

gtgtcagttc ttgtggtaaa tccaatccac acattacaaa caggtcccgg agggcgccct 31980

ccaccaccat tcttaaacac accctcataa tgacaaaata tcttgctcct gtgtcacctg 32040

tagcgaattg agaatggcaa catcaattga catgcccttg gctctaagtt cttctttaag 32100

ttctagttgt aaaaactctc tcatattatc accaaactgc ttagccagaa gccccccggg 32160

aacaagagca ggggacgcta cagtgcagta caagcgcaga cctccccaat tggctccagc 32220

aaaaacaaga ttggaataag catattggga accgccagta atatcatcga agttgctgga 32280

aatataatca ggcagagttt cttgtaaaaa ttgaataaaa gaaaaatttg ccaaaaaaac 32340

attcaaaacc tctgggatgc aaatgcaata ggttaccgcg ctgcgctcca acattgttag 32400

ttttgaatta gtctgcaaaa ataaaaaaaa aaacaagcgt catatcatag tagcctgacg 32460

aacagatgga taaatcagtc tttccatcac aagacaagcc acagggtctc cagctcgacc 32520

ctcgtaaaac ctgtcatcat gattaaacaa cagcaccgaa agttcctcgc ggtgaccagc 32580

atgaataatt cttgatgaag catacaatcc agacatgtta gcatcagtta acgagaaaaa 32640

acagccaaca tagcctttgg gtataattat gcttaatcgt aagtatagca aagccacccc 32700

tcgcggatac aaagtaaaag gcacaggaga ataaaaaata taattatttc tctgctgctg 32760

ttcaggcaac gtcgcccccg gtccctctaa atacacatac aaagcctcat cagccatggc 32820

ttaccagaca aagtacagcg ggcacacaaa gcacaagctc taaagtgact ctccaacctc 32880

tccacaatat atatatacac aagccctaaa ctgacgtaat gggagtaaag tgtaaaaaat 32940

cccgccaaac ccaacacaca ccccgaaact gcgtcaccag ggaaaagtac agtttcactt 33000

ccgcaatccc aacaggcgta acttcctctt tctcacggta cgtgatatcc cactaacttg 33060

caacgtcatt ttcccacggt cgcaccgccc cttttagccg ttaaccccac agccaatcac 33120

cacacgatcc acacttttta aaatcacctc atttacatat tggcaccatt ccatctataa 33180

ggtatattat atagataga 33199

<210> 22
<211> 33868
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-97 virus genome sequence

<400> 22
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct agtaatcaat tacggggtca 29400

ttagttcata gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct 29460

ggctgaccgc ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta 29520

acgccaatag ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac 29580

ttggcagtac atcaagtgta tcatatgcca agtacgcccc ctattgacgt caatgacggt 29640

aaatggcccg cctggcatta tgcccagtac atgaccttat gggactttcc tacttggcag 29700

tacatctacg tattagtcat cgctattacc atgctgatgc ggttttggca gtacatcaat 29760

gggcgtggat agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat 29820

gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc 29880

ccattgacgc aaatgggcgg taggcgtgta cggtgggagg tctatataag cagagctggt 29940

ttagtgaacc gtcagatcag atctttgtcg atcctaccat ccactcgaca cacccgccag 30000

cggccgctgc caagcttccg agctctcgaa ttcaaaggag gtacccacca tggccttgac 30060

ctttgcttta ctggtggccc tcctggtgct cagctgcaag tcaagctgct ctgtgggctg 30120

tgatctgcct caaacccaca gcctgggtag caggaggacc ttgatgctcc tggcacagat 30180

gaggagaatc tctcttttct cctgcttgaa ggacagacat gactttggat ttccccagga 30240

ggagtttggc aaccagttcc aaaaggctga aaccatccct gtcctccatg agatgatcca 30300

gcagatcttc aatctcttca gcacaaagga ctcatctgct gcttgggatg agaccctcct 30360

agacaaattc tacactgaac tctaccagca gctgaatgac ctggaagcct gtgtgataca 30420

gggggtgggg gtgacagaga ctcccctgat gaaggaggac tccattctgg ctgtgaggaa 30480

atacttccaa agaatcactc tctatctgaa agagaagaaa tacagccctt gtgcctggga 30540

ggttgtcaga gcagaaatca tgagatcttt ttctttgtca acaaacttgc aagaaagttt 30600

aagaagtaag gaatgagcta gcttgactga ctgagataca gcgtaccttc agctcacaga 30660

catgataaga tacattgatg agtttggaca aaccacaact agaatgcagt gaaaaaaatg 30720

ctttatttgt gaaatttgtg atgctattgc tttatttgta accattataa gctgcaataa 30780

acaagttaac aacaacaatt gcattcattt tatgtttcag gttcaggggg aggtgtggga 30840

ggttttttaa agcaagtaaa acctctacaa atgtggtagt cgtcagctat cctgcaggaa 30900

cttgtttatt tgaaaatcaa ttcacaaaat ccgagtagtt attttgcctc ccccttccca 30960

tttaacagaa tacaccaatc tctccccacg cacagcttta aacatttgga taccattaga 31020

tatagacatg gttttagatt ccacattcca aacagtttca gagcgagcca atctggggtc 31080

agtgatagat aaaaatccat cgggatagtc ttttaaagcg ctttcacagt ccaactgctg 31140

cggatgcgac tccggagtct ggatcacggt catctggaag aagaacgatg ggaatcataa 31200

tccgaaaacg gtatcggacg attgtgtctc atcaaaccca caagcagccg ctgtctgcgt 31260

cgctccgtgc gactgctgtt tatgggatca gggtccacag tgtcctgaag catgatttta 31320

atagccctta acatcaactt tctggtgcga tgcgcgcagc aacgcattct gatttcactc 31380

aaatctttgc agtaggtaca acacattatt acaatattgt ttaataaacc ataattaaaa 31440

gcgctccagc caaaactcat atctgatata atcgcccctg catgaccatc ataccaaagt 31500

ttaatataaa ttaaatgacg ttccctcaaa aacacactac ccacatacat gatctctttt 31560

ggcatgtgca tattaacaat ctgtctgtac catggacaac gttggttaat catgcaaccc 31620

aatataacct tccggaacca cactgccaac accgctcccc cagccatgca ttgaagtgaa 31680

ccctgctgat tacaatgaca atgaagaacc caattctctc gaccgtgaat cacttgagaa 31740

tgaaaaatat ctatagtggc acaacataga cataaatgca tgcatcttct cataattttt 31800

aactcctcag gatttagaaa catatcccag ggaataggaa gctcttgcag aacagtaaag 31860

ctggcagaac aaggaagacc acgaacacaa cttacactat gcatagtcat agtatcacaa 31920

tctggcaaca gcgggtggtc ttcagtcata gaagctcggg tttcattttc ctcacaacgt 31980

ggtaactggg ctctggtgta agggtgatgt ctggcgcatg atgtcgagcg tgcgcgcaac 32040

cttgtcataa tggagttgct tcctgacatt ctcgtatttt gtatagcaaa acgcggccct 32100

ggcagaacac actcttcttc gccttctatc ctgccgctta gcgtgttccg tgtgatagtt 32160

caagtacaac cacactctta agttggtcaa aagaatgctg gcttcagttg taatcaaaac 32220

tccatcgcat ctaatcgttc tgaggaaatc atccaagcaa tgcaactgga ttgtgtttca 32280

agcaggagag gagagggaag agacggaaga accatgttaa tttttattcc aaacgatctc 32340

gcagtacttc aaattgtaga tcgcgcagat ggcatctctc gcccccactg tgttggtgaa 32400

aaagcacagc tagatcaaaa gaaatgcgat tttcaaggtg ctcaacggtg gcttccagca 32460

aagcctccac gcgcacatcc aagaacaaaa gaataccaaa agaaggagca ttttctaact 32520

cctcaatcat catattacat tcctgcacca ttcccagata attttcagct ttccagcctt 32580

gaattattcg tgtcagttct tgtggtaaat ccaatccaca cattacaaac aggtcccgga 32640

gggcgccctc caccaccatt cttaaacaca ccctcataat gacaaaatat cttgctcctg 32700

tgtcacctgt agcgaattga gaatggcaac atcaattgac atgcccttgg ctctaagttc 32760

ttctttaagt tctagttgta aaaactctct catattatca ccaaactgct tagccagaag 32820

ccccccggga acaagagcag gggacgctac agtgcagtac aagcgcagac ctccccaatt 32880

ggctccagca aaaacaagat tggaataagc atattgggaa ccgccagtaa tatcatcgaa 32940

gttgctggaa atataatcag gcagagtttc ttgtaaaaat tgaataaaag aaaaatttgc 33000

caaaaaaaca ttcaaaacct ctgggatgca aatgcaatag gttaccgcgc tgcgctccaa 33060

cattgttagt tttgaattag tctgcaaaaa taaaaaaaaa aacaagcgtc atatcatagt 33120

agcctgacga acagatggat aaatcagtct ttccatcaca agacaagcca cagggtctcc 33180

agctcgaccc tcgtaaaacc tgtcatcatg attaaacaac agcaccgaaa gttcctcgcg 33240

gtgaccagca tgaataattc ttgatgaagc atacaatcca gacatgttag catcagttaa 33300

cgagaaaaaa cagccaacat agcctttggg tataattatg cttaatcgta agtatagcaa 33360

agccacccct cgcggataca aagtaaaagg cacaggagaa taaaaaatat aattatttct 33420

ctgctgctgt tcaggcaacg tcgcccccgg tccctctaaa tacacataca aagcctcatc 33480

agccatggct taccagacaa agtacagcgg gcacacaaag cacaagctct aaagtgactc 33540

tccaacctct ccacaatata tatatacaca agccctaaac tgacgtaatg ggagtaaagt 33600

gtaaaaaatc ccgccaaacc caacacacac cccgaaactg cgtcaccagg gaaaagtaca 33660

gtttcacttc cgcaatccca acaggcgtaa cttcctcttt ctcacggtac gtgatatccc 33720

actaacttgc aacgtcattt tcccacggtc gcaccgcccc ttttagccgt taaccccaca 33780

gccaatcacc acacgatcca cacttttaa aatcacctca tttacatatt ggcaccattc 33840

catctataag gtatattata tagataga 33868

<210> 23
<211> 36030
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-134 virus genome sequence

<400> 23
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct agtaatcaat tacggggtca 29400

ttagttcata gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct 29460

ggctgaccgc ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta 29520

acgccaatag ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac 29580

ttggcagtac atcaagtgta tcatatgcca agtacgcccc ctattgacgt caatgacggt 29640

aaatggcccg cctggcatta tgcccagtac atgaccttat gggactttcc tacttggcag 29700

tacatctacg tattagtcat cgctattacc atgctgatgc ggttttggca gtacatcaat 29760

gggcgtggat agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat 29820

gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc 29880

ccattgacgc aaatgggcgg taggcgtgta cggtgggagg tctatataag cagagctggt 29940

ttagtgaacc gtcagatcag atctttgtcg atcctaccat ccactcgaca cacccgccag 30000

cggccgctgc caagcttccg agctctcgaa ttcaaaggag gtacccacca tgggatggag 30060

ctgtatcatc ctcttcttgg tagcaacagc tacaggtgtc cactccgagg ttcagctggt 30120

ggagtctggc ggtggcctgg tgcagccagg gggctcactc cgtttgtcct gtgcagcttc 30180

tggctatacc ttcaccaact atggtatgaa ctgggtccgt caggccccgg gtaagggcct 30240

ggaatgggtt ggatggatta acacctatac cggtgaaccg acctatgctg cggatttcaa 30300

acgtcgtttt actttttctc tggacacctc caagagcaca gcttacctgc agatgaacag 30360

cctgcgcgct gaggacactg ccgtctatta ctgtgcaaag tacccgcact attatgggag 30420

cagccactgg tatttcgacg tctggggtca aggaaccctg gtcaccgtct cctcggcctc 30480

caccaagggc ccatcggtct tccccctggc accctcctcc aagagcacct ctgggggcac 30540

agcggccctg ggctgcctgg tcaaggacta cttccccgaa ccggtgacgg tgtcgtggaa 30600

ctcaggcgcc ctgaccagcg gcgtgcacac cttcccggct gtcctacagt cctcaggact 30660

ctactccctc agcagcgtgg tgaccgtgcc ctccagcagc ttgggcaccc agacctacat 30720

ctgcaacgtg aatcacaagc ccagcaacac caaggtcgac aagaaagttg agcccaaatc 30780

ttgtgacaaa actcacacat gcccaccgtg cccagcacct gagctcctgg ggggaccgtc 30840

agtcttcctc ttccccccaa aacccaagga caccctcatg atctcccgga cccctgaggt 30900

cacatgcgtg gtggtggacg tgagccacga agaccctgag gtcaagttca actggtacgt 30960

ggacggcgtg gaggtgcata atgccaagac aaagccgcgg gaggagcagt acaacagcac 31020

gtaccgtgtg gtcagcgtcc tcaccgtcct gcaccaggac tggctgaatg gcaaggagta 31080

caagtgcaag gtctccaaca aagccctccc agcccccatc gagaaaacca tctccaaagc 31140

caaagggcag ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac 31200

caagaaccag gtcagcctga cctgcctggt caaaggcttc tatcccagcg acatcgccgt 31260

ggagtgggag agcaatgggc agccggagaa caactacaag accacgcctc ccgtgctgga 31320

ctccgacggc tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca 31380

ggggaacgtc ttctcatgct ccgtgatgca cgaggctctg cacaaccact acacgcagaa 31440

gagcctctcc ctgtctccgg gtaaatgatc tagactcgag gtttctagaa gttgtctcct 31500

cctgcactga ctgactgacc taacgttact ggccgaagcc gcttggaata aggccggtgt 31560

gcgtttgtct atatgttatt ttccaccata ttgccgtctt ttggcaatgt gagggcccgg 31620

aaacctggcc ctgtcttctt gacgagcatt cctaggggtc tttcccctct cgccaaagga 31680

atgcaaggtc tgttgaatgt cgtgaaggaa gcagttcctc tggaagcttc ttgaagacaa 31740

acaacgtctg tagcgaccct ttgcaggcag cggaaccccc cacctggcga caggtgcctc 31800

tgcggccaaa agccacgtgt ataagataca cctgcaaagg cggcacaacc ccagtgccac 31860

gttgtgagtt ggatagttgt ggaaagagtc aaatggctcc cctcaagcgt attcaacaag 31920

gggctgaagg atgcccagaa ggtaccccat tgtatgggat ctgatctggg gcctcggtgc 31980

acatgctttt catgtgttta gtcgaggtta aaaaacgtct aggcccccg aaccacgggg 32040

acgtggtttt cctttgaaaa acacgatgat aataacatgg actggacctg gcgcgtgttt 32100

tgcctgctcg ccgtggctcc tggggcccac agcgatatcc agatgaccca gtccccgagc 32160

tccctgtccg cctctgtggg cgatagggtc accatcacct gcagcgcaag tcaggatatt 32220

agcaactatt taaactggta tcaacagaaa ccaggaaaag ctccgaaagt cctgatttac 32280

ttcacctcct ctctccactc tggagtccct tctcgcttct ctggatccgg ttctgggacg 32340

gatttcactc tgaccatcag cagtctgcag ccagaagact tcgcaactta ttactgtcaa 32400

cagtatagca ccgtgccgtg gacgtttgga cagggtacca aggtggagat caaacgaact 32460

gtggctgcac catctgtctt catcttcccg ccatctgatg agcagttgaa atctggaact 32520

gcttctgttg tgtgcctgct gaataacttc tatcccagag aggccaaagt acagtggaag 32580

gtggataacg ccctccaatc gggtaactcc caggagagtg tcacagagca ggacagcaag 32640

gacagcacct acagcctcag cagcaccctg acgctgagca aagcagacta cgagaaacac 32700

aaagtctacg cctgcgaagt cacccatcag ggcctgagct cgcccgtcac aaagagcttc 32760

aacaggggag agtgttaagc tagcttgact gactgagata cagcgtacct tcagctcaca 32820

gacatgataa gatacattga tgagtttgga caaaccacaa ctagaatgca gtgaaaaaaa 32880

tgctttattt gtgaaatttg tgatgctatt gctttatttg taaccattat aagctgcaat 32940

aaacaagtta acaacaacaa ttgcattcat tttatgtttc aggttcaggg ggaggtgtgg 33000

gaggtttttt aaagcaagta aaacctctac aaatgtggta gtcgtcagct atcctgcagg 33060

aacttgttta tttgaaaatc aattcacaaa atccgagtag ttattttgcc tccccttcc 33120

catttaacag aatacaccaa tctctcccca cgcacagctt taaacatttg gataccatta 33180

gatatagaca tggttttaga ttccacattc caaacagttt cagagcgagc caatctgggg 33240

tcagtgatag ataaaaatcc atcgggatag tcttttaaag cgctttcaca gtccaactgc 33300

tgcggatgcg actccggagt ctggatcacg gtcatctgga agaagaacga tgggaatcat 33360

aatccgaaaa cggtatcgga cgattgtgtc tcatcaaacc cacaagcagc cgctgtctgc 33420

gtcgctccgt gcgactgctg tttatgggat cagggtccac agtgtcctga agcatgattt 33480

taatagccct taacatcaac tttctggtgc gatgcgcgca gcaacgcatt ctgatttcac 33540

tcaaatcttt gcagtaggta caacacatta ttacaatatt gtttaataaa ccataattaa 33600

aagcgctcca gccaaaactc atatctgata taatcgcccc tgcatgacca tcataccaaa 33660

gtttaatata aattaaatga cgttccctca aaaacacact acccacatac atgatctctt 33720

ttggcatgtg catattaaca atctgtctgt accatggaca acgttggtta atcatgcaac 33780

ccaatataac cttccggaac cacactgcca acaccgctcc cccagccatg cattgaagtg 33840

aaccctgctg attacaatga caatgaagaa cccaattctc tcgaccgtga atcacttgag 33900

aatgaaaaat atctatagtg gcacaacata gacataaatg catgcatctt ctcataattt 33960

ttaactcctc aggatttaga aacatatccc agggaatagg aagctcttgc agaacagtaa 34020

agctggcaga acaaggaaga ccacgaacac aacttacact atgcatagtc atagtatcac 34080

aatctggcaa cagcgggtgg tcttcagtca tagaagctcg ggtttcattt tcctcacaac 34140

gtggtaactg ggctctggtg taagggtgat gtctggcgca tgatgtcgag cgtgcgcgca 34200

accttgtcat aatggagttg cttcctgaca ttctcgtatt ttgtatagca aaacgcggcc 34260

ctggcagaac acactcttct tcgccttcta tcctgccgct tagcgtgttc cgtgtgatag 34320

ttcaagtaca accacactct taagttggtc aaaagaatgc tggcttcagt tgtaatcaaa 34380

actccatcgc atctaatcgt tctgaggaaa tcatccaagc aatgcaactg gattgtgttt 34440

caagcaggag aggagaggga agagacggaa gaaccatgtt aatttttatt ccaaacgatc 34500

tcgcagtact tcaaattgta gatcgcgcag atggcatctc tcgcccccac tgtgttggtg 34560

aaaaagcaca gctagatcaa aagaaatgcg attttcaagg tgctcaacgg tggcttccag 34620

caaagcctcc acgcgcacat ccaagaacaa aagaatacca aaagaaggag cattttctaa 34680

ctcctcaatc atcatattac attcctgcac cattcccaga taattttcag ctttccagcc 34740

ttgaattatt cgtgtcagtt cttgtggtaa atccaatcca cacattacaa acaggtcccg 34800

gagggcgccc tccaccacca ttcttaaaca caccctcata atgacaaaat atcttgctcc 34860

tgtgtcacct gtagcgaatt gagaatggca acatcaattg acatgccctt ggctctaagt 34920

tcttctttaa gttctagttg taaaaactct ctcatattat caccaaactg cttagccaga 34980

agccccccgg gaacaagagc aggggacgct acagtgcagt acaagcgcag acctccccaa 35040

ttggctccag caaaaacaag attggaataa gcatattggg aaccgccagt aatatcatcg 35100

aagttgctgg aaatataatc aggcagagtt tcttgtaaaa attgaataaa agaaaaattt 35160

gccaaaaaaa cattcaaaac ctctgggatg caaatgcaat aggttaccgc gctgcgctcc 35220

aacattgtta gttttgaatt agtctgcaaa aataaaaaaa aaaacaagcg tcatatcata 35280

gtagcctgac gaacagatgg ataaatcagt ctttccatca caagacaagc cacagggtct 35340

ccagctcgac cctcgtaaaa cctgtcatca tgattaaaca acagcaccga aagttcctcg 35400

cggtgaccag catgaataat tcttgatgaa gcatacaatc cagacatgtt agcatcagtt 35460

aacgagaaaa aacagccaac atagcctttg ggtataatta tgcttaatcg taagtatagc 35520

aaagccaccc ctcgcggata caaagtaaaa ggcacaggag aataaaaaat ataattattt 35580

ctctgctgct gttcaggcaa cgtcgccccc ggtccctcta aatacacata caaagcctca 35640

tcagccatgg cttaccagac aaagtacagc gggcacacaa agcacaagct ctaaagtgac 35700

tctccaacct ctccacaata tatatataca caagccctaa actgacgtaa tgggagtaaa 35760

gtgtaaaaaa tcccgccaaa cccaacacac accccgaaac tgcgtcacca gggaaaagta 35820

cagtttcact tccgcaatcc caacaggcgt aacttcctct ttctcacggt acgtgatatc 35880

ccactaactt gcaacgtcat tttcccacgg tcgcaccgcc ccttttagcc gttaacccca 35940

cagccaatca ccacacgatc cacacttttt aaaatcacct catttacata ttggcaccat 36000

tccatctata aggtatatta tatagataga 36030

<210> 24
<211> 35353
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-135 virus genome sequence

<400> 24
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

gctgaggtgg taatagatac tcaagacaag gcagttatta gatgctgcat gatggatatg 2580

tggcctgggg tagtcggtat ggaagcagta acttttgtaa atgttaagtt taggggagat 2640

ggttataatg gaatagtgtt tatggccaat accaaactta tattgcatgg ttgtagcttt 2700

tttggtttca acaatacctg tgtagatgcc tggggacagg ttagtgtacg gggatgtagt 2760

ttctatgcgt gttggattgc cacagctggc agaaccaaga gtcaattgtc tctgaagaaa 2820

tgcatatttc aaagatgtaa cctgggcatt ctgaatgaag gcgaagcaag ggtccgccac 2880

tgcgcttcta cagatactgg atgttttatt ttgattaagg gaaatgccag cgtaaagcat 2940

aacatgattt gcggtgcttc cgatgagagg ccttatcaaa tgctcacttg tgctggtggg 3000

cattgtaata tgctggctac tgtgcatatt gtttcccatc aacgcaaaaa atggcctgtt 3060

tttgatcaca atgtgatgac gaagtgtacc atgcatgcag gtgggcgtag aggaatgttt 3120

atgccttacc agtgtaacat gaatcatgtg aaagtgttgt tggaaccaga tgccttttcc 3180

agaatgagcc taacaggaat ttttgacatg aacatgcaaa tctggaagat cctgaggtat 3240

gatgatacga gatcgagggt acgcgcatgc gaatgcggag gcaagcatgc caggttccag 3300

ccggtgtgtg tagatgtgac tgaagatctc agaccggatc atttggttat tgcccgcact 3360

ggagcagagt tcggatccag tggagaagaa actgactaag gtgagtattg ggaaaacttt 3420

ggggtgggat tttcagatgg acagattgag taaaaatttg ttttttctgt cttgcagctg 3480

tcatgagtgg aaacgcttct tttaaggggg gagtcttcag cccttatctg acagggcgtc 3540

tcccatcctg ggcaggagtt cgtcagaatg ttatgggatc tactgtggat ggaagacccg 3600

tccaacccgc caattcttca acgctgacct atgctacttt aagttcttca cctttggacg 3660

cagctgcagc tgccgccgcc gcttctgttg ccgctaacac tgtgcttgga atgggttact 3720

atggaagcat catggctaat tccacttcct ctaataaccc ttctaccctg actcaggaca 3780

agttacttgt ccttttggcc cagctggagg ctttgaccca acgtctgggt gaactttctc 3840

agcaggtggt cgagttgcga gtacaaactg agtctgctgt cggcacggca aagtctaaat 3900

aaaaaaatcc cagaatcaat gaataaataa acaagcttgt tgttgattta aaatcaagtg 3960

tttttatttc atttttcgcg cacggtatgc cctagaccac cgatctctat cattgagaac 4020

tcggtggatt ttttccagga tcctatagag gtgggattga atgtttagat acatgggcat 4080

taggccgtct ttggggtgga gatagctcca ttgaagggat tcatgctccg gggtagtgtt 4140

gtaaatcacc cagtcataac aaggtcgcag tgcatggtgt tgcacaatat cttttagaag 4200

taggctgatt gccacagata agcccttggt gtaggtgttt acaaaccggt tgagctggga 4260

tgggtgcatt cggggtgaaa ttatgtgcat tttggattgg atttttaagt tggcaatatt 4320

gccgccaaga tcccgtcttg ggttcatgtt atgaaggacc accaagacgg tgtatccggt 4380

acatttagga aatttatcgt gcagcttgga tggaaaagcg tggaaaaatt tggagacacc 4440

cttgtgtcct ccaagatttt ccatgcactc atccatgata atagcaatgg ggccgtgggc 4500

agcggcgcgg gcaaacacgt tccgtgggtc tgacacatca tagttatgtt cctgagttaa 4560

atcatcataa gccattttaa tgaatttggg gcggagagta ccagattggg gtatgaatgt 4620

tccttcgggc cccggagcat agttcccctc acagatttgc atttcccaag ctttcagttc 4680

cgagggtgga atcatgtcca cctgggggggc tatgaaaaac accgtttctg gggcgggggt 4740

gattaattgt gatgatagca aatttctgag caattgagat ttgccacatc cggtggggcc 4800

ataaatgatt ccgattacgg gttgcaggtg gtagtttagg gaacggcaac tgccgtcttc 4860

tcgaagcaag ggggccacct cgttcatcat ttcccttaca tgcatatttt cccgcaccaa 4920

atccattagg aggcgctctc ctcctagtga tagaagttct tgtagtgagg aaaagttttt 4980

cagcggtttc agaccgtcag ccatgggcat tttggagaga gtttgctgca aaagttctag 5040

tctgttccac agttcagtga tgtgttctat ggcatctcga tccagcagac ctcctcgttt 5100

cgcgggtttg gacggctcct ggaatagggt atgagacgat gggcgtccag cgctgccagg 5160

gttcggtcct tccagggtct cagtgttcga gtcagggttg tttccgtcac agtgaagggg 5220

tgtgcgcctg cttgggcgct tgccagggtg cgcttcagac tcatcctgct ggtcgaaaac 5280

ttctgtcgct tggcgccctg tatgtcggcc aagtagcagt ttaccatgag ttcgtagttg 5340

agcgcctcgg ctgcgtggcc tttggcgcgg agcttacctt tggaagtttt cttgcatacc 5400

gggcagtata ggcatttcag cgcatacaac ttgggcgcaa ggaaaacgga ttctggggag 5460

tatgcatctg cgccgcagga ggcgcaaaca gtttcacatt ccaccagcca ggttaaatcc 5520

ggttcattgg ggtcaaaaac aagttttccg ccatattttt tgatgcgttt cttacctttg 5580

gtctccatga gttcgtgtcc tcgttgagtg acaaacaggc tgtccgtgtc cccgtagact 5640

gattttacag gcctcttctc cagtggagtg cctcggtctt cttcgtacag gaactctgac 5700

cactctgata caaaggcgcg cgtccaggcc agcacaaagg aggctatgtg ggaggggtag 5760

cgatcgttgt caaccagggg gtccaccttt tccaaagtat gcaaacacat gtcaccctct 5820

tcaacatcca ggaatgtgat tggcttgtag gtgtatttca cgtgacctgg ggtccccgct 5880

gggggggtat aaaagggggc ggttctttgc tcttcctcac tgtcttccgg atcgctgtcc 5940

aggaacgtca gctgttgggg taggtattcc ctctcgaagg cgggcatgac ctctgcactc 6000

aggttgtcag tttctaagaa cgaggaggat ttgatattga cagtgccggt tgagatgcct 6060

ttcatgaggt tttcgtccat ctggtcagaa aacacaattt ttttattgtc aagtttggtg 6120

gcaaatgatc catacagggc gttggataaa agtttggcaa tggatcgcat ggtttggttc 6180

ttttccttgt ccgcgcgctc tttggcggcg atgttgagtt ggacatactc gcgtgccagg 6240

cacttccatt cggggaagat agttgttaat tcatctggca cgattctcac ttgccaccct 6300

cgattatgca aggtaattaa atccacactg gtggccacct cgcctcgaag gggttcattg 6360

gtccaacaga gcctacctcc tttcctagaa cagaaagggg gaagtgggtc tagcataagt 6420

tcatcgggag ggtctgcatc catggtaaag attcccggaa gtaaatcctt atcaaaatag 6480

ctgatgggag tggggtcatc taaggccatt tgccattctc gagctgccag tgcgcgctca 6540

tatgggttaa ggggactgcc ccatggcatg ggatgggtga gtgcagaggc atacatgcca 6600

cagatgtcat agacgtagat gggatcctca aagatgccta tgtaggttgg atagcatcgc 6660

ccccctctga tacttgctcg cacatagtca tatagttcat gtgatggcgc tagcagcccc 6720

ggacccaagt tggtgcgatt gggtttttct gttctgtaga cgatctggcg aaagatggcg 6780

tgagaattgg aagagatggt gggtctttga aaaatgttga aatgggcatg aggtagacct 6840

acagagtctc tgacaaagtg ggcataagat tcttgaagct tggttaccag ttcggcggtg 6900

acaagtacgt ctagggcgca gtagtcaagt gtttcttgaa tgatgtcata acctggttgg 6960

tttttctttt cccacagttc gcggttgaga aggtattctt cgcgatcctt ccagtactct 7020

tctagcggaa acccgtcttt gtctgcacgg taagatccta gcatgtagaa ctgattaact 7080

gccttgtaag ggcagcagcc cttctctacg ggtagagagt atgcttgagc agcttttcgt 7140

agcgaagcgt gagtaagggc aaaggtgtct ctgaccatga ctttgaggaa ttggtatttg 7200

aagtcgatgt cgtcacaggc tccctgttcc cagagttgga agtctacccg tttcttgtag 7260

gcggggttgg gcaaagcgaa agtaacatca ttgaagagaa tcttgccggc cctgggcatg 7320

aaattgcgag tgatgcgaaa aggctgtggt acttccgctc ggttattgat aacctgggca 7380

gctaggacga tctcgtcgaa accgttgatg ttgtgtccta cgatgtataa ttctatgaaa 7440

cgcggcgtgc ctctgacgtg aggtagctta ctgagctcat caaaggttag gtctgtgggg 7500

tcagataagg cgtagtgttc gagagcccat tcgtgcaggt gaggattcgc tttaaggaag 7560

gaggaccaga ggtccactgc cagtgctgtt tgtaactggt cccggtactg acgaaaatgc 7620

cgtccgactg ccatttttc tggggtgacg caatagaagg tttgggggtc ctgccgccag 7680

cgatcccact tgagttttat ggcgaggtca taggcgatgt tgacgagccg ctggtctcca 7740

gagagtttca tgaccagcat gaaggggatt agctgcttgc caaaggaccc catccaggtg 7800

taggtttcca catcgtaggt gagaaagagc ctttctgtgc gaggatgaga gccaatcggg 7860

aagaactgga tctcctgcca ccagttggag gaatggctgt tgatgtgatg gaagtagaac 7920

tccctgcgac gcgccgagca ttcatgcttg tgcttgtaca gacggccgca gtagtcgcag 7980

cgttgcacgg gttgtatctc gtgaatgagt tgtacctggc ttcccttgac gagaaatttc 8040

agtgggaagc cgaggcctgg cgattgtatc tcgtgcttta ctatgttgtc tgcatcggcc 8100

tgttcatctt ctgtctcgat ggtggtcatg ctgacgagcc ctcgcgggag gcaagtccag 8160

acctcggcgc ggcaggggcg gagctcgagg acgagagcgc gcaggctgga gctgtccagg 8220

gtcctgagac gctgcggact caggttagta ggcagtgtca ggagattaac ttgcatgatc 8280

ttttggaggg cgtgcgggag gttcagatag tacttgatct caacgggtcc gttggtggag 8340

atgtcgatgg cttgcagggt tccgtgtccc ttgggcgcta ccaccgtgcc cttgtttttc 8400

attttggacg gcggtggctc tgttgcttct tgcatgttta gaagcggtgt cgagggcgcg 8460

caccgggcgg caggggcggc tcgggacccg gcggcatggc tggcagtggt acgtcggcgc 8520

cgcgcgcggg taggttctgg tactgcgccc tgagaagact cgcatgcgcg acgacgcggc 8580

ggttgacatc ctggatctga cgcctctggg tgaaagctac cggccccgtg agcttgaacc 8640

tgaaagagag ttcaacagaa tcaatctcgg tatcgttgac ggcggcttgc ctaaggattt 8700

cttgcacgtc accagagttg tcctggtagg cgatctccgc catgaactgc tcgatctctt 8760

cctcttgaag atctccgcgg cccgctctct cgacggtggc cgcgaggtcg ttggagatgc 8820

gcccaatgag ttgagagaat gcattcatgc ccgcctcgtt ccagacgcgg ctgtagacca 8880

cggcccccac gggatctctc gcgcgcatga ccacctgggc gaggttgagc tccacgtggc 8940

gggtgaagac cgcatagttg cataggcgct ggaaaaggta gttgagtgtg gtggcgatgt 9000

gctcggtgac gaagaaatac atgatccatc gtctcagcgg catctcgctg acatcgccca 9060

gagcttccaa gcgctccatg gcctcgtaga agtccacggc aaaattaaaa aactgggagt 9120

ttcgcgcgga cacggtcaac tcctcttcca gaagacggat aagttcggcg atggtggtgg 9180

cacctcgcgc tcgaaagccc ctgggatttc ttcctcaatc tcttcttctt ccactaacat 9240

ctcttcctct tcaggtgggg ctgcaggagg agggggaacg cggcgacgcc ggcggcgcac 9300

gggcagacgg tcgatgaatc tttcaatgac ctctccgcgg cggcggcgca tggtttcagt 9360

gacggcgcgg ccgttctcgc gcggtcgcag agtaaaaaca ccgccgcgca tctccttaaa 9420

gtggtgactg ggaggttctc cgtttgggag ggagagggcg ctgattatac attttattaa 9480

ttggcccgta gggactgcac gcagagatct gatcgtgtca agatccacgg gatctgaaaa 9540

cctttcgacg aaagcgtcta accagtcaca gtcacaaggt aggctgagta cggcttcttg 9600

tgggcggggg tggttatgtg ttcggtctgg gtcttctgtt tcttcttcat ctcgggaagg 9660

tgagacgatg ctgctggtga tgaaattaaa gtaggcagtt ctaagacggc ggatggtggc 9720

gaggagcacc aggtctttgg gtccggcttg ctggatacgc aggcgattgg ccattcccca 9780

agcattatcc tgacatctag caagatcttt gtagtagtct tgcatgagcc gttctacggg 9840

cacttcttcc tcacccgttc tgccatgcat acgtgtgagt ccaaatccgc gcattggttg 9900

taccagtgcc aagtcagcta cgactctttc ggcgaggatg gcttgctgta cttgggtaag 9960

ggtggcttga aagtcatcaa aatccacaaa gcggtggtaa gctcctgtat taatggtgta 10020

agcacagttg gccatgactg accagttaac tgtctggtga ccagggcgca cgagctcggt 10080

gtatttaagg cgcgaatagg cgcgggtgtc aaagatgtaa tcgttgcagg tgcgcaccag 10140

atactggtac cctataagaa aatgcggcgg tggttggcgg tagagaggcc atcgttctgt 10200

agctggagcg ccaggggcga ggtcttccaa cataaggcgg tgatagccgt agatgtacct 10260

ggacatccag gtgattcctg cggcggtagt agaagcccga ggaaactcgc gtacgcggtt 10320

ccaaatgttg cgtagcggca tgaagtagtt cattgtaggc acggtttgac cagtgaggcg 10380

cgcgcagtca ttgatgctct atagacacgg agaaaatgaa agcgttcagc gactcgactc 10440

cgtagcctgg aggaacgtga acgggttggg tcgcggtgta ccccggttcg agacttgtac 10500

tcgagccggc cggagccgcg gctaacgtgg tattggcact cccgtctcga cccagcctac 10560

aaaaatccag gatacggaat cgagtcgttt tgctggtttc cgaatggcag ggaagtgagt 10620

cctatttttt ttttttgccg ctcagatgca tcccgtgctg cgacagatgc gcccccaaca 10680

acagcccccc tcgcagcagc agcagcagca atcacaaaag gctgtccctg caactactgc 10740

aactgccgcc gtgagcggtg cgggacagcc cgcctatgat ctggacttgg aagagggcga 10800

aggactggca cgtctaggtg cgccttcacc cgagcggcat ccgcgagttc aactgaaaaa 10860

agattctcgc gaggcgtatg tgccccaaca gaacctattt agagacagaa gcggcgagga 10920

gccggaggag atgcgagctt cccgctttaa cgcgggtcgt gagctgcgtc acggtttgga 10980

ccgaagacga gtgttgcggg acgaggattt cgaagttgat gaaatgacag ggatcagtcc 11040

tgccagggca cacgtggctg cagccaacct tgtatcggct tacgagcaga cagtaaagga 11100

agagcgtaac ttccaaaagt cttttaataa tcatgtgcga accctgattg cccgcgaaga 11160

agttaccctt ggtttgatgc atttgtggga tttgatggaa gctatcattc agaaccctac 11220

tagcaaacct ctgaccgccc agctgtttct ggtggtgcaa cacagcagag acaatgaggc 11280

tttcagagag gcgctgctga acatcaccga acccgagggg agatggttgt atgatcttat 11340

caacattcta cagagtatca tagtgcagga gcggagcctg ggcctggccg agaaggtggc 11400

tgccatcaat tactcggttt tgagcttggg aaaatattac gctcgcaaaa tctacaagac 11460

tccatacgtt cccatagaca aggaggtgaa gatagatggg ttctacatgc gcatgacgct 11520

caaggtcttg accctgagcg atgatcttgg ggtgtatcgc aatgacagaa tgcatcgcgc 11580

ggttagcgcc agcaggaggc gcgagttaag cgacagggaa ctgatgcaca gtttgcaaag 11640

agctctgact ggagctggaa ccgagggtga gaattacttc gacatgggag ctgacttgca 11700

gtggcagcct agtcgcaggg ctctgagcgc cgcgacggca ggatgtgagc ttccttacat 11760

agaagaggcg gatgaaggcg aggaggaaga gggcgagtac ttggaagact gatggcacaa 11820

cccgtgtttt ttgctagatg gaacagcaag caccggatcc cgcaatgcgg gcggcgctgc 11880

agagccagcc gtccggcatt aactcctcgg acgattggac ccaggccatg caacgtatca 11940

tggcgttgac gactcgcaac cccgaagcct ttagacagca accccaggcc aaccgtctat 12000

cggccatcat ggaagctgta gtgccttccc gctctaatcc cactcatgag aaggtcctgg 12060

ccatcgtgaa cgcgttggtg gagaacaaag ctattcgtcc agatgaggcc ggactggtat 12120

acaacgctct cttagaacgc gtggctcgct acaacagtag caatgtgcaa accaatttgg 12180

accgtatgat aacagatgta cgcgaagccg tgtctcagcg cgaaaggttc cagcgtgatg 12240

ccaacctggg ttcgctggtg gcgttaaatg ctttcttgag tactcagcct gctaatgtgc 12300

cgcgtggtca acaggattat actaactttt taagtgcttt gagactgatg gtatcagaag 12360

tacctcagag cgaagtgtat cagtccggtc ctgattactt ctttcagact agcagacagg 12420

gcttgcagac ggtaaatctg agccaagctt ttaaaaacct taaaggtttg tggggagtgc 12480

atgccccggt aggagaaaga gcaaccgtgt ctagcttgtt aactccgaac tcccgcctat 12540

tattactgtt ggtagctcct ttcaccgaca gcggtagcat cgaccgtaat tcctatttgg 12600

gttacctact aaacctgtat cgcgaagcca tagggcaaag tcaggtggac gagcagacct 12660

atcaagaaat tacccaagtc agtcgcgctt tgggacagga agacactggc agtttggaag 12720

ccactctgaa cttcttgctt accaatcggt ctcaaaagat ccctcctcaa tatgctctta 12780

ctgcggagga ggagaggatc cttagatatg tgcagcagag cgtgggattg tttctgatgc 12840

aagaggggggc aactccgact gcagcactgg acatgacagc gcgaaatatg gagcccagca 12900

tgtatgccag taaccgacct ttcattaaca aactgctgga ctacttgcac agagctgccg 12960

ctatgaactc tgattatttc accaatgcca tcttaaaccc gcactggctg cccccacctg 13020

gtttctacac gggcgaatat gacatgcccg accctaatga cggatttctg tgggacgacg 13080

tggacagcga tgtttttca cctctttctg atcatcgcac gtggaaaaag gaaggcggcg 13140

atagaatgca ttcttctgca tcgctgtccg gggtcatggg tgctaccgcg gctgagcccg 13200

agtctgcaag tccttttcct agtctaccct tttctctaca cagtgtacgt agcagcgaag 13260

tgggtagaat aagtcgcccg agtttaatgg gcgaagagga gtatctaaac gattccttgc 13320

tcagaccggc aagagaaaaa aatttcccaa acaatggaat agaaagtttg gtggataaaa 13380

tgagtagatg gaagacttat gctcaggatc acagagacga gcctgggatc atggggatta 13440

caagtagagc gagccgtaga cgccagcgcc atgacagaca gaggggtctt gtgtgggacg 13500

atgaggattc ggccgatgat agcagcgtgc tggacttggg tgggagagga aggggcaacc 13560

cgtttgctca tttgcgccct cgcttgggtg gtatgttgta aaaaaaaata aaaaaaaaac 13620

tcaccaaggc catggcgacg agcgtacgtt cgttcttctt tattatctgt gtctagtata 13680

atgaggcgag tcgtgctagg cggagcggtg gtgtatccgg agggtcctcc tccttcgtac 13740

gagagcgtga tgcagcagca gcaggcgacg gcggtgatgc aatccccact ggaggctccc 13800

tttgtgcctc cgcgatacct ggcacctacg gagggcagaa acagcattcg ttattcggaa 13860

ctggcacctc agtacgatac caccaggttg tatctggtgg acaacaagtc ggcggacatt 13920

gcttctctga actatcagaa tgaccacagc aacttcttga ccacggtggt gcaaaacaat 13980

gactttaccc ctacggaagc cagcacccag accattaact ttgatgaacg atcgcggtgg 14040

ggcggtcagc taaagaccat catgcatact aacatgccaa acgtgaacga gtatatgttt 14100

agtaacaagt tcaaagcgcg tgtgatggtg tccagaaaac ctcccgacgg tgctgcagtt 14160

ggggatactt atgatcacaa gcaggatatt ttgaaatatg agtggttcga gtttactttg 14220

ccagaaggca acttttcagt tactatgact attgatttga tgaacaatgc catcatagat 14280

aattacttga aagtgggtag acagaatgga gtgcttgaaa gtgacattgg tgttaagttc 14340

gacaccagga acttcaagct gggatgggat cccgaaacca agttgatcat gcctggagtg 14400

tatacgtatg aagccttcca tcctgacatt gtcttactgc ctggctgcgg agtggatttt 14460

accgagagtc gtttgagcaa ccttcttggt atcagaaaaa aacagccatt tcaagagggt 14520

tttaagattt tgtatgaaga tttagaaggt ggtaatattc cggccctctt ggatgtagat 14580

gcctatgaga acagtaagaa agaacaaaaa gccaaaatag aagctgctac agctgctgca 14640

gaagctaagg caaacatagt tgccagcgac tctacaaggg ttgctaacgc tggagaggtc 14700

agaggagaca attttgcgcc aacacctgtt ccgactgcag aatcattatt ggccgatgtg 14760

tctgaaggaa cggacgtgaa actcactatt caacctgtag aaaaagatag taagaataga 14820

agctataatg tgttggaaga caaaatcaac acagcctatc gcagttggta tctttcgtac 14880

aattatggcg atcccgaaaa aggagtgcgt tcctggacat tgctcaccac ctcagatgtc 14940

acctgcggag cagagcaggt ctactggtcg cttccagaca tgatgaagga tcctgtcact 15000

ttccgctcca ctagacaagt cagtaactac cctgtggtgg gtgcagagct tatgcccgtc 15060

ttctcaaaga gcttctacaa cgaacaagct gtgtactccc agcagctccg ccagtccacc 15120

tcgcttacgc acgtcttcaa ccgctttcct gagaaccaga ttttaatccg tccgccggcg 15180

cccaccatta ccaccgtcag tgaaaacgtt cctgctctca cagatcacgg gaccctgccg 15240

ttgcgcagca gtatccgggg agtccaacgt gtgaccgtta ctgacgccag acgccgcacc 15300

tgtccctacg tgtacaaggc actgggcata gtcgcaccgc gcgtcctttc aagccgcact 15360

ttctaaaaaa aaaaaaaatg tccattctta tctcgcccag taataacacc ggttggggtc 15420

tgcgcgctcc aagcaagatg tacggaggcg cacgcaaacg ttctacccaa catcctgtcc 15480

gtgttcgcgg acattttcgc gctccatggg gcgccctcaa gggccgcact cgcgttcgaa 15540

ccaccgtcga tgatgtaatc gatcaggtgg ttgccgacgc ccgtaattat actcctactg 15600

cgcctacatc tactgtggat gcagttattg acagtgtagt ggctgacgct cgcaactatg 15660

ctcgacgtaa gagccggcga aggcgcattg ccagacgcca ccgagctacc actgccatgc 15720

gagccgcaag agctctgcta cgaagagcta gacgcgtggg gcgaagagcc atgcttaggg 15780

cggccagacg tgcagcttcg ggcgccagcg ccggcaggtc ccgcaggcaa gcagccgctg 15840

tcgcagcggc gactattgcc gacatggccc aatcgcgaag aggcaatgta tactgggtgc 15900

gtgacgctgc caccggtcaa cgtgtacccg tgcgcacccg tccccctcgc acttagaaga 15960

tactgagcag tctccgatgt tgtgtcccag cggcgaggat gtccaagcgc aaatacaagg 16020

aagaaatgct gcaggttatc gcacctgaag tctacggcca accgttgaag gatgaaaaaa 16080

aaccccgcaa aatcaagcgg gttaaaaagg acaaaaaaga agaggaagat ggcgatgatg 16140

ggctggcgga gtttgtgcgc gagtttgccc cacggcgacg cgtgcaatgg cgtgggcgca 16200

aagttcgaca tgtgttgaga cctggaactt cggtggtctt tacacccggc gagcgttcaa 16260

gcgctacttt taagcgttcc tatgatgagg tgtacgggga tgatgatatt cttgagcagg 16320

cggctgaccg attaggcgag tttgcttatg gcaagcgtag tagaataact tccaaggatg 16380

agacagtgtc gataccttg gatcatggaa atcccacccc tagtcttaaa ccggtcactt 16440

tgcagcaagt gttacccgta actccgcgaa caggtgttaa acgcgaaggt gaagatttgt 16500

atcccactat gcaactgatg gtacccaaac gccagaagtt ggaggacgtt ttggagaaag 16560

taaaagtgga tccagatatt caacctgagg ttaaagtgag acccattaag caggtagcgc 16620

ctggtctggg ggtacaaact gtagacatta agattcccac tgaaagtatg gaagtgcaaa 16680

ctgaacccgc aaagcctact gccacctcca ctgaagtgca aacggatcca tggatgccca 16740

tgcctattac aactgacgcc gccggtccca ctcgaagatc ccgacgaaag tacggtccag 16800

caagtctgtt gatgcccaat tatgttgtac acccatctat tattcctact cctggttacc 16860

gaggcactcg ctactatcgc agccgaaaca gtacctcccg ccgtcgccgc aagacacctg 16920

caaatcgcag tcgtcgccgt agacgcacaa gcaaaccgac tcccggcgcc ctggtgcggc 16980

aagtgtaccg caatggtagt gcggaacctt tgacactgcc gcgtgcgcgt taccatccga 17040

gtatcatcac ttaatcaatg ttgccgctgc ctccttgcag atatggccct cacttgtcgc 17100

cttcgcgttc ccatcactgg ttaccgagga agaaactcgc gccgtagaag agggatgttg 17160

ggacgcggaa tgcgacgcta caggcgacgg cgtgctatcc gcaagcaatt gcggggtggt 17220

tttttaccag ccttaattcc aattatcgct gctgcaattg gcgcgatacc aggcatagct 17280

tccgtggcgg ttcaggcctc gcaacgacat tgacattgga aaaaaacgta taaataaaaa 17340

aaaaaaaata caatggactc tgacactcct ggtcctgtga ctatgttttc ttagagatgg 17400

aagacatcaa tttttcatcc ttggctccgc gacacggcac gaagccgtac atgggcacct 17460

ggagcgacat cggcacgagc caactgaacg ggggcgcctt caattggagc agtatctgga 17520

gcgggcttaa aaattttggc tcaaccataa aaacatacgg gaacaaagct tggaacagca 17580

gtacaggaca ggcgcttaga aataaactta aagaccagaa cttccaacaa aaagtagtcg 17640

atgggatagc ttccggcatc aatggagtgg tagatttggc taaccaggct gtgcagaaaa 17700

agataaacag tcgtttggac ccgccgccag caaccccagg tgaaatgcaa gtggaggaag 17760

aaattcctcc gccagaaaaa cgaggcgaca agcgtccgcg tcccgatttg gaagagacgc 17820

tggtgacgcg cgtagatgaa ccgccttctt atgaggaagc aacgaagctt ggaatgccca 17880

ccactagacc gatagcccca atggccaccg gggtgatgaa accttctcag ttgcatcgac 17940

ccgtcacctt ggatttgccc cctccccctg ctgctactgc tgtacccgct tctaagcctg 18000

tcgctgcccc gaaaccagtc gccgtagcca ggtcacgtcc cgggggcgct cctcgtccaa 18060

atgcgcactg gcaaaatact ctgaacagca tcgtgggtct aggcgtgcaa agtgtaaaac 18120

gccgtcgctg cttttaatta aatatggagt agcgcttaac ttgcctatct gtgtatatgt 18180

gtcattacac gccgtcacag cagcagagga aaaaaggaag aggtcgtgcg tcgacgctga 18240

gttactttca agatggccac cccatcgatg ctgccccaat gggcatacat gcacatcgcc 18300

ggacaggatg cttcggagta cctgagtccg ggtctggtgc agttcgcccg cgccacagac 18360

acctacttca atctgggaaa taagtttaga aatcccaccg tagcgccgac ccacgatgtg 18420

accaccgacc gtagccagcg gctcatgttg cgcttcgtgc ccgttgaccg ggaggacaat 18480

acatactctt acaaagtgcg gtacaccctg gccgtgggcg acaacagagt gctggatatg 18540

gccagcacgt tctttgacat taggggtgtg ttggacagag gtcccagttt caaaccctat 18600

tctggtacgg cttacaactc cctggctcct aaaggcgctc caaatacatc tcagtggatt 18660

gcagaaggtg taaaaaatac aactggtgag gaacacgtaa cagaagagga aaccaatact 18720

actacttaca cttttggcaa tgctcctgta aaagctgaag ctgaaattac aaaagaagga 18780

ctcccagtag gtttggaagt ttcagatgaa gaaagtaaac cgatttatgc tgataaaaca 18840

tatcagccag aacctcagct gggagatgaa acttggactg accttgatgg aaaaaccgaa 18900

aagtatggag gcagggctct caaacccgat actaagatga aaccatgcta cgggtccttt 18960

gccaaaccta ctaatgtgaa aggcggtcag gcaaaacaaa aaacaacgga gcagccaaat 19020

cagaaagtcg aatatgatat cgacatggag ttttttgatg cggcatcgca gaaaacaaac 19080

ttaagtccta aaattgtcat gtatgcagaa aatgtaaatt tggaaactcc agacactcat 19140

gtagtgtaca aacctggaac agaagacaca agttccgaag ctaatttggg acaacaatct 19200

atgcccaaca gacccaacta cattggcttc agagataact ttattggact tatgtactat 19260

aacagtactg gtaacatggg ggtgctggct ggtcaagcgt ctcagttaaa tgcagtggtt 19320

gacttgcagg acagaaacac agaactttct taccaactct tgcttgactc tctgggcgac 19380

agaaccagat actttagcat gtggaatcag gctgtggaca gttatgatcc tgatgtacgt 19440

gttattgaaa atcatggtgt ggaagatgaa cttcccaact actgttttcc actggacggc 19500

ataggtgttc caacaaccag ttacaaatca atagttccaa atggagacaa tgcgcctaat 19560

tggaaggaac ctgaagtaaa tggaacaagt gagatcggac agggtaattt gtttgccatg 19620

gaaattaacc ttcaagccaa tctatggcga agtttccttt attccaatgt ggctctatat 19680

ctcccagact cgtacaaata caccccgtcc aatgtcactc ttccagaaaa caaaaacacc 19740

tacgactaca tgaacgggcg ggtggtgccg ccatctctag tagacaccta tgtgaacatt 19800

ggtgccaggt ggtctctgga tgccatggac aatgtcaacc cattcaacca ccaccgtaac 19860

gctggcttgc gttaccgatc catgcttctg ggtaacggac gttatgtgcc tttccacata 19920

caagtgcctc aaaaattctt cgctgttaaa aacctgctgc ttctcccagg ctcctacact 19980

tatgagtgga actttaggaa ggatgtgaac atggttctac agagttccct cggtaacgac 20040

ctgcgggtag atggcgccag catcagtttc acgagcatca acctctatgc tacttttttc 20100

cccatggctc acaacaccgc ttccaccctt gaagccatgc tgcggaatga caccaatgat 20160

cagtcattca acgactacct atctgcagct aacatgctct accccattcc tgccaatgca 20220

accaatattc ccatttccat tccttctcgc aactgggcgg ctttcagagg ctggtcattt 20280

accagactga aaaccaaaga aactccctct ttggggtctg gatttgaccc ctactttgtc 20340

tattctggtt ctattcccta cctggatggt accttctacc tgaaccacac ttttaagaag 20400

gtttccatca tgtttgactc ttcagtgagc tggcctggaa atgacaggtt actatctcct 20460

aacgaatttg aaataaagcg cactgtggat ggcgaaggct acaacgtagc ccaatgcaac 20520

atgaccaaag actggttctt ggtacagatg ctcgccaact acaacatcgg ctatcagggc 20580

ttctacattc cagaaggata caaagatcgc atgtattcat ttttcagaaa cttccagccc 20640

atgagcaggc aggtggttga tgaggtcaat tacaaagact tcaaggccgt cgccataccc 20700

taccaacaca acaactctgg ctttgtgggt tacatggctc cgaccatgcg ccaaggtcaa 20760

ccctatcccg ctaactatcc ctatccactc attggaacaa ctgccgtaaa tagtgttacg 20820

cagaaaaagt tcttgtgtga cagaaccatg tggcgcatac cgttctcgag caacttcatg 20880

tctatggggg cccttacaga cttgggacag aatatgctct atgccaactc agctcatgct 20940

ctggacatga cctttgaggt ggatcccatg gatgagccca ccctgcttta tcttctcttc 21000

gaagttttcg acgtggtcag agtgcatcag ccacaccgcg gcatcatcga ggcagtctac 21060

ctgcgtacac cgttctcggc cggtaacgct accacgtaag aagcttcttg cttcttgcaa 21120

atagcagctg caaccatggc ctgcggatcc caaaacggct ccagcgagca agagctcaga 21180

gccattgtcc aagacctggg ttgcggaccc tatttttgg gaacctacga taagcgcttc 21240

ccggggttca tggcccccga taagctcgcc tgtgccattg taaatacggc cggacgtgag 21300

acgggggggag agcactggtt ggctttcggt tggaacccac gttctaacac ctgctacctt 21360

tttgatcctt ttggattctc ggatgatcgt ctcaaacaga tttaccagtt tgaatatgag 21420

ggtctcctgc gccgcagcgc tcttgctacc aaggaccgct gtattacgct ggaaaaatct 21480

acccagaccg tgcagggtcc ccgttctgcc gcctgcggac ttttctgctg catgttcctt 21540

cacgcctttg tgcactggcc tgaccgtccc atggacggaa accccaccat gaaattgcta 21600

actggagtgc caaacaacat gcttcattct cctaaagtcc agcccaccct gtgtgacaat 21660

caaaaagcac tctaccattt tcttaatacc cattcgcctt attttcgctc ccatcgtaca 21720

cacatcgaaa gggccactgc gttcgaccgt atggatgttc aataatgact catgtaaaca 21780

acgtgttcaa taaacatcac tttatttttt tacatgtatc aaggctctgc attacttatt 21840

tatttacaag tcgaatgggt tctgacgaga atcagaatga cccgcaggca gtgatacgtt 21900

gcggaactga tacttgggtt gccacttgaa ttcgggaatc accaacttgg gaaccggtat 21960

atcgggcagg atgtcactcc acagctttct ggtcagctgc aaagctccaa gcaggtcagg 22020

agccgaaatc ttgaaatcac aattaggacc agtgctttga gcgcgagagt tgcggtacac 22080

cggattgcag cactgaaaca ccatcagcga cggatgtctc acgcttgcca gcacggtggg 22140

atctgcaatc atgcccacat ccagatcttc agcattggca atgctgaacg gggtcatctt 22200

gcaggtctgc ctacccatgg cgggcaccca attaggcttg tggttgcaat cgcagtgcag 22260

ggggatcagt atcatcttgg cctgatcctg tctgattcct ggatacacgg ctctcatgaa 22320

agcatcatat tgcttgaaag cctgctgggc tttactaccc tcggtataaa acatcccgca 22380

ggacctgctc gaaaactggt tagctgcaca gccggcatca ttcacacagc agcgggcgtc 22440

attgttagct atttgcacca cacttctgcc ccagcggttt tgggtgattt tggttcgctc 22500

gggattctcc tttaaggctc gttgtccgtt ctcgctggcc acatccatct cgataatctg 22560

ctccttctga atcataatat tgccatgcag gcacttcagc ttgccctcat aatcattgca 22620

gccatgaggc cacaacgcac agcctgtaca ttcccaatta tggtgggcga tctgagaaaa 22680

agaatgtatc attccctgca gaaatcttcc catcatcgtg ctcagtgtct tgtgactagt 22740

gaaagttaac tggatgcctc ggtgctcctc gtttacgtac tggtgacaga tgcgcttgta 22800

ttgttcgtgt tgctcaggca ttagtttaaa agaggttcta agttcgttat ccagcctgta 22860

cttctccatc agcagacaca tcacttccat gcctttctcc caagcagaca ccaggggcaa 22920

gctaatcgga ttcttaacag tgcaggcagc agctccttta gccagagggt catctttagc 22980

gatcttctca atgcttcttt tgccatcctt ctcaacgatg cgcacgggcg ggtagctgaa 23040

acccactgct acaagttgcg cctcttctct ttcttcttcg ctgtcttgac tgatgtcttg 23100

catggggata tgtttggtct tccttggctt ctttttgggg ggtatcggag gaggaggact 23160

gtcgctccgt tccggagaca gggaggattg tgacgtttcg ctcaccatta ccaactgact 23220

gtcggtagaa gaacctgacc ccacacggcg acaggtgttt ctcttcgggg gcagaggtgg 23280

aggcgattgc gaagggctgc ggtccgacct ggaaggcgga tgactggcag aacccccttcc 23340

gcgttcgggg gtgtgctccc tgtggcggtc gcttaactga tttccttcgc ggctggccat 23400

tgtgttctcc taggcagaga aacaacagac atggaaactc agccattgct gtcaacatcg 23460

ccacgagtgc catcacatct cgtcctcagc gacgaggaaa aggagcagag cttaagcatt 23520

ccaccgccca gtcctgccac cacctctacc ctagaagata aggaggtcga cgcatctcat 23580

gacatgcaga ataaaaaagc gaaagagtct gagacagaca tcgagcaaga cccgggctat 23640

gtgacaccgg tggaacacga ggaagagttg aaacgctttc tagagagaga ggatgaaaac 23700

tgcccaaaac aacgagcaga taactatcac caagatgctg gaaataggga tcagaacacc 23760

gactacctca tagggcttga cggggaagac gcgctcctta aacatctagc aagacagtcg 23820

ctcatagtca aggatgcatt attggacaga actgaagtgc ccatcagtgt ggaagagctc 23880

agccgcgcct acgagcttaa cctcttttca cctcgtactc cccccaaacg tcagccaaac 23940

ggcacctgcg agccaaatcc tcgcttaaac ttttatccag cttttgctgt gccagaagta 24000

ctggctacct atcacatctt ttttaaaaat caaaaaattc cagtctcctg ccgcgctaat 24060

cgcacccgcg ccgatgccct actcaatctg ggacctggtt cacgcttacc tgatatagct 24120

tccttggaag aggttccaaa gatcttcgag ggtctgggca ataatgagac tcgggccgca 24180

aatgctctgc aaaagggaga aaatggcatg gatgagcatc acagcgttct ggtggaattg 24240

gaaggcgata atgccagact cgcagtactc aagcgaagca tcgaggtcac acacttcgca 24300

tatcccgctg tcaacctgcc ccctaaagtc atgacggcgg tcatggacca gttactcatt 24360

aagcgcgcaa gtccccttc agaagacatg catgacccag atgcctgtga tgagggtaaa 24420

ccagtggtca gtgatgagca gctaacccga tggctgggca ccgactctcc cagggatttg 24480

gaagagcgtc gcaagcttat gatggccgtg gtgctggtta ccgtagaact agagtgtctc 24540

cgacgtttct ttaccgattc agaaaccttg cgcaaactcg aagagaatct gcactacact 24600

tttagacacg gctttgtgcg gcaggcatgc aagatatcta acgtggaact caccaacctg 24660

gtttcctaca tgggtattct gcatgagaat cgcctaggac aaagcgtgct gcacagcacc 24720

ctgaaggggg aagcccgccg tgattacatc cgcgattgtg tctatctgta cctgtgccac 24780

acgtggcaaa ccggcatggg tgtatggcag caatgtttag aagaacagaa cttgaaagag 24840

cttgacaagc tcttacagaa atctcttaag gttctgtgga cagggttcga cgagcgcacc 24900

gtcgcttccg acctggcaga cctcatcttc ccagagcgtc tcagggttac tttgcgaaac 24960

ggattgcctg actttatgag ccagagcatg cttaacaatt ttcgctcttt catcctggaa 25020

cgctccggta tcctgcccgc cacctgctgc gcactgccct ccgactttgt gcctctcacc 25080

taccgcgagt gccccccgcc gctatggagt cactgctacc tgttccgtct ggccaactat 25140

ctctcctacc actcggatgt gatcgaggat gtgagcggag acggcttgct ggagtgtcac 25200

tgccgctgca atctgtgcac gccccaccgg tccctagctt gcaaccccca gttgatgagc 25260

gaaacccaga taataggcac ctttgaattg caaggcccca gcagccaagg cgatgggtct 25320

tctcctgggc aaagtttaaa actgaccccg ggactgtgga cctccgccta cttgcgcaag 25380

tttgctccgg aagattacca cccctatgaa atcaagttct atgaggacca atcacagcct 25440

ccaaaggccg aactttcggc ctgcgtcatc acccaggggg caattctggc ccaattgcaa 25500

gccatccaaa aatcccgcca agaatttcta ctgaaaaagg gtaaggggggt ctaccttgac 25560

ccccagaccg gcgaggaact caacacaagg ttccctcagg atgtcccaac gacgagaaaa 25620

caagaagttg aaggtgcagc cgccgccccc agaagatatg gaggaagatt gggacagtca 25680

ggcagaggag gcggaggagg acagtctgga ggacagtctg gaggaagaca gtttggagga 25740

ggaaaacgag gaggcagagg aggtggaaga agtaaccgcc gacaaacagt tatcctcggc 25800

tgcggagaca agcaacagcg ctaccatctc cgctccgagt cgaggaaccc ggcggcgtcc 25860

cagcagtaga tgggacgaga ccggacgctt cccgaaccca accagcgctt ccaagaccgg 25920

taagaaggat cggcagggat acaagtcctg gcgggggcat aagaatgcca tcatctcctg 25980

cttgcatgag tgcgggggca acatatcctt cacgcggcgc tacttgctat tccaccatgg 26040

ggtgaacttt ccgcgcaatg ttttgcatta ctaccgtcac ctccacagcc cctactatag 26100

ccagcaaatc ccggcagtct cgacagataa agacagcggc ggcgacctcc aacagaaaac 26160

cagcagcggc agttagaaaa tacacaacaa gtgcagcaac aggaggatta aagattacag 26220

ccaacgagcc agcgcaaacc cgagagttaa gaaatcggat ctttccaacc ctgtatgcca 26280

tcttccagca gagtcggggt caagagcagg aactgaaaat aaaaaaccga tctctgcgtt 26340

cgctcaccag aagttgtttg tatcacaaga gcgaagatca acttcagcgc actctcgagg 26400

acgccgaggc tctcttcaac aagtactgcg cgctgactct taaagagtag gcagcgaccg 26460

cgcttattca aaaaaggcgg gaattacatc atcctcgaca tgagtaaaga aattcccacg 26520

ccttacatgt ggagttatca accccaaatg ggattggcgg caggcgcctc ccaggactac 26580

tccacccgca tgaattggct cagcgccggg ccttctatga tttctcgagt taatgatata 26640

cgcgcctacc gaaaccaaat actttggaa cagtcagctc ttaccaccac gccccgccaa 26700

caccttaatc ccagaaattg gcccgccgcc ctagtgtacc aggaaagtcc cgctcccacc 26760

actgtattac ttcctcgaga cgcccaggcc gaagtccaaa tgactaatgc aggtgcgcag 26820

ttagctggcg gctccaccct atgtcgtcac aggcctcggc ataatataaa acgcctgatg 26880

atcagaggcc gaggtatcca gctcaacgac gagtcggtga gctctccgct tggtctacga 26940

ccagacggaa tctttcagat tgccggctgc gggagatctt ccttcacccc tcgtcaggct 27000

gttctgactt tggaaagttc gtcttcgcaa ccccgctcgg gcggaatcgg gaccgttcaa 27060

tttgtggagg agtttactcc ctctgtctac ttcaacccct tctccggatc tcctgggcat 27120

tacccggacg agttcatacc gaacttcgac gcgattagcg agtcagtgga cggctacgat 27180

tgatgtctgg tgacgcggct gagctatctc ggctgcgaca tctagaccac tgccgccgct 27240

ttcgctgctt tgcccgggaa ctcattgagt tcatctactt cgaactcccc aaggatcacc 27300

ctcaaggtcc ggcccacgga gtgcggattt ctatcgaagg caaaatagac tctcgcctgc 27360

aacgaatttt ctcccagcgg cccgtgctga tcgagcgaga ccagggaaac accacggttt 27420

ccatctactg catttgtaat caccccggat tgcatgaaag cctttgctgt cttatgtgta 27480

ctgagtttaa taaaaactga attaagactc tcctacggac tgccgcttct tcaacccgga 27540

ttttacaacc agaagaacga aacttttcct gtcgtccagg actctgttaa cttcaccttt 27600

cctactcaca aactagaagc tcaacgacta caccgctttt ccagaagcat tttccctact 27660

aatactactt tcaaaaccgg aggtgagctc caaggtcttc ctacagaaaa cccttgggtg 27720

gaagcgggcc ttgtagtgct aggaattctt gcgggtgggc ttgtgattat tctttgctac 27780

ctatacacac cttgcttcac tttcttagtg gtgttgtggt attggtttaa aaaatggggc 27840

ccatactagt cttgcttgtt ttactttcgc ttttggaacc gggttctgcc aattacgatc 27900

catgtctaga cttcgaccca gaaaactgca cacttacttt tgcacccgac acaagccgca 27960

tctgtggagt tcatcgcctc tcttacgaac ttggccccca acgacaaaaa tttacctgca 28020

tggtgggaat caaccccata gttatcaccc agcaaagtgg agatactaag ggttgcattc 28080

actgctcctg cgattccatc gagtgcacct acaccctgct gaagacccta tgcggcctaa 28140

gagacctgct accaatgaat taaaaaatga ttaataaaaa atcacttact tgaaatcagc 28200

aataaggtct ctgttgaaat tttctcccag cagcacctca cttccctctt cccaactctg 28260

gtattctaaa ccccgttcag cggcatactt tctccatact ttaaaggga tgtcaaattt 28320

tagctcctct cctgtaccca caatcttcat gtctttcttc ccagatgacc aagagagtcc 28380

ggctcagtga ctccttcaac cctgtctacc cctatgaaga tgaaagcacc tcccaacacc 28440

cctttataaa cccagggttt atttccccaa atggcttcac acaaagccca aacggagttc 28500

ttactttaaa atgtttaacc ccactaacaa ccacaggcgg atctctacag ctaaaagtgg 28560

gaggggact tacagtggat gacaccaacg gtttttgaa agaaaacata agtgccacca 28620

caccactcgt taagactggt cactctatag gtttaccact aggagccgga ttgggaacga 28680

atgaaaataa actttgtatc aaattaggac aaggacttac attcaattca aacaacattt 28740

gcattgatga caatattaac accttatgga caggagtcaa ccccaccgaa gccaactgtc 28800

aaatcatgaa ctccagtgaa tctaatgatt gcaaattaat tctaacacta gttaaaactg 28860

gagcactagt cactgcattt gtttatgtta taggagtatc taacaatttt aatatgctaa 28920

ctacacacag aaatataaat tttactgcag agctgttttt cgattctact ggtaatttac 28980

taactagact ctcatccctc aaaactccac ttaatcataa atcaggacaa aacatggcta 29040

ctggtgccat tactaatgct aaaggtttca tgcccagcac gactgcctat cctttcaatg 29100

ataattctag agaaaaagaa aactacattt acggaacttg ttactacaca gctagtgatc 29160

gcactgcttt tcccattgac atatctgtca tgcttaaccg aagagcaata aatgacgaga 29220

catcatattg tattcgtata acttggtcct ggaacacagg agatgcccca gaggtgcaaa 29280

cctctgctac aaccctagtc acctccccat ttacctttta ctacatcaga gaagacgact 29340

gacaaataaa gtttgcgatc gccaggccca ccatgggatg gagctgtatc atcctcttct 29400

tggtagcaac agctacaggt gtccactccg aggttcagct ggtggagtct ggcggtggcc 29460

tggtgcagcc agggggctca ctccgtttgt cctgtgcagc ttctggctat accttcacca 29520

actatggtat gaactgggtc cgtcaggccc cgggtaaggg cctggaatgg gttggatgga 29580

ttaacaccta taccggtgaa ccgacctatg ctgcggattt caaacgtcgt tttacttttt 29640

ctctggacac ctccaagagc acagcttacc tgcagatgaa cagcctgcgc gctgaggaca 29700

ctgccgtcta ttactgtgca aagtacccgc actattatgg gagcagccac tggtatttcg 29760

acgtctgggg tcaaggaacc ctggtcaccg tctcctcggc ctccaccaag ggcccatcgg 29820

tcttccccct ggcaccctcc tccaagagca cctctggggg cacagcggcc ctgggctgcc 29880

tggtcaagga ctacttcccc gaaccggtga cggtgtcgtg gaactcaggc gccctgacca 29940

gcggcgtgca caccttcccg gctgtcctac agtcctcagg actctactcc ctcagcagcg 30000

tggtgaccgt gccctccagc agcttgggca cccagaccta catctgcaac gtgaatcaca 30060

agcccagcaa caccaaggtc gacaagaaag ttgagcccaa atcttgtgac aaaactcaca 30120

catgcccacc gtgcccagca cctgagctcc tgggggggacc gtcagtcttc ctcttccccc 30180

caaaacccaa ggacaccctc atgatctccc ggacccctga ggtcacatgc gtggtggtgg 30240

acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc gtggaggtgc 30300

ataatgccaa gacaaagccg cgggaggagc agtacaacag cacgtaccgt gtggtcagcg 30360

tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc aaggtctcca 30420

acaaagccct cccagccccc atcgagaaaa ccatctccaa agccaaaggg cagccccgag 30480

aaccacaggt gtacaccctg cccccatccc gggaggagat gaccaagaac caggtcagcc 30540

tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc cgtggagtgg gagagcaatg 30600

ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac ggctccttct 30660

tcctctacag caagctcacc gtggacaaga gcaggtggca gcaggggaac gtcttctcat 30720

gctccgtgat gcacgaggct ctgcacaacc actacacgca gaagagcctc tccctgtctc 30780

cgggtaaatg atctagactc gaggtttcta gaagttgtct cctcctgcac tgactgactg 30840

acctaacgtt actggccgaa gccgcttgga ataaggccgg tgtgcgtttg tctatatgtt 30900

attttccacc atattgccgt cttttggcaa tgtgagggcc cggaaacctg gccctgtctt 30960

cttgacgagc attcctaggg gtctttcccc tctcgccaaa ggaatgcaag gtctgttgaa 31020

tgtcgtgaag gaagcagttc ctctggaagc ttcttgaaga caaacaacgt ctgtagcgac 31080

cctttgcagg cagcggaacc ccccacctgg cgacaggtgc ctctgcggcc aaaagccacg 31140

tgtataagat acacctgcaa aggcggcaca accccagtgc cacgttgtga gttggatagt 31200

tgtggaaaga gtcaaatggc tcccctcaag cgtattcaac aaggggctga aggatgccca 31260

gaaggtaccc cattgtatgg gatctgatct ggggcctcgg tgcacatgct tttcatgtgt 31320

ttagtcgagg ttaaaaaacg tctaggcccc ccgaaccacg gggacgtggt tttcctttga 31380

aaaacacgat gataataaca tggactggac ctggcgcgtg ttttgcctgc tcgccgtggc 31440

tcctggggcc cacagcgata tccagatgac ccagtccccg agctccctgt ccgcctctgt 31500

gggcgatagg gtcaccatca cctgcagcgc aagtcaggat attagcaact atttaaactg 31560

gtatcaacag aaaccaggaa aagctccgaa agtcctgatt tacttcacct cctctctcca 31620

ctctggagtc ccttctcgct tctctggatc cggttctggg acggatttca ctctgaccat 31680

cagcagtctg cagccagaag acttcgcaac ttattactgt caacagtata gcaccgtgcc 31740

gtggacgttt ggacagggta ccaaggtgga gatcaaacga actgtggctg caccatctgt 31800

cttcatcttc ccgccatctg atgagcagtt gaaatctgga actgcttctg ttgtgtgcct 31860

gctgaataac ttctatccca gagaggccaa agtacagtgg aaggtggata acgccctcca 31920

atcgggtaac tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct 31980

cagcagcacc ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga 32040

agtcacccat cagggcctga gctcgcccgt cacaaagagc ttcaacaggg gagagtgtta 32100

agctagcttg actgactgag atacagcgta ccttcagctc acagacatga taagatacat 32160

tgatgagttt ggacaaacca caactagaat gcagtgaaaa aaatgcttta tttgtgaaat 32220

ttgtgatgct attgctttat ttgtaaccat tataagctgc aataaacaag ttaacaacaa 32280

caattgcatt cattttatgt ttcaggttca gggggaggtg tgggaggttt tttaaagcaa 32340

gtaaaacctc tacaaatgtg gtagtcgtca gctatcctgc aggaacttgt ttatttgaaa 32400

atcaattcac aaaatccgag tagttatttt gcctcccccc tcccatttaa cagaatacac 32460

caatctctcc ccacgcacag ctttaaacat ttggatacca ttagatatag acatggtttt 32520

agattccaca ttccaaacag tttcagagcg agccaatctg gggtcagtga tagataaaaa 32580

tccatcggga tagtctttta aagcgctttc acagtccaac tgctgcggat gcgactccgg 32640

agtctggatc acggtcatct ggaagaagaa cgatgggaat cataatccga aaacggtatc 32700

ggacgattgt gtctcatcaa acccacaagc agccgctgtc tgcgtcgctc cgtgcgactg 32760

ctgtttatgg gatcagggtc cacagtgtcc tgaagcatga ttttaatagc ccttaacatc 32820

aactttctgg tgcgatgcgc gcagcaacgc attctgattt cactcaaatc tttgcagtag 32880

gtacaacaca ttattacaat attgtttaat aaaccataat taaaagcgct ccagccaaaa 32940

ctcatatctg atataatcgc ccctgcatga ccatcatacc aaagtttaat ataaattaaa 33000

tgacgttccc tcaaaaacac actacccaca tacatgatct cttttggcat gtgcatatta 33060

acaatctgtc tgtaccatgg acaacgttgg ttaatcatgc aacccaatat aaccttccgg 33120

aaccacactg ccaacaccgc tcccccagcc atgcattgaa gtgaaccctg ctgattacaa 33180

tgacaatgaa gaacccaatt ctctcgaccg tgaatcactt gagaatgaaa aatatctata 33240

gtggcacaac atagacataa atgcatgcat cttctcataa tttttaactc ctcaggattt 33300

agaaacatat cccagggaat aggaagctct tgcagaacag taaagctggc agaacaagga 33360

agaccacgaa cacaacttac actatgcata gtcatagtat cacaatctgg caacagcggg 33420

tggtcttcag tcatagaagc tcgggtttca ttttcctcac aacgtggtaa ctgggctctg 33480

gtgtaagggt gatgtctggc gcatgatgtc gagcgtgcgc gcaaccttgt cataatggag 33540

ttgcttcctg acattctcgt attttgtata gcaaaacgcg gccctggcag aacacactct 33600

tcttcgcctt ctatcctgcc gcttagcgtg ttccgtgtga tagttcaagt acaaccacac 33660

tcttaagttg gtcaaaagaa tgctggcttc agttgtaatc aaaactccat cgcatctaat 33720

cgttctgagg aaatcatcca agcaatgcaa ctggattgtg tttcaagcag gagaggagag 33780

ggaagagacg gaagaaccat gttaattttt attccaaacg atctcgcagt acttcaaatt 33840

gtagatcgcg cagatggcat ctctcgcccc cactgtgttg gtgaaaaagc acagctagat 33900

caaaagaaat gcgattttca aggtgctcaa cggtggcttc cagcaaagcc tccacgcgca 33960

catccaagaa caaaagaata ccaaaagaag gagcattttc taactcctca atcatcatat 34020

tacattcctg caccattccc agataatttt cagctttcca gccttgaatt attcgtgtca 34080

gttcttgtgg taaatccaat ccacacatta caaacaggtc ccggagggcg ccctccacca 34140

ccattcttaa acacaccctc ataatgacaa aatatcttgc tcctgtgtca cctgtagcga 34200

attgagaatg gcaacatcaa ttgacatgcc cttggctcta agttcttctt taagttctag 34260

ttgtaaaaac tctctcatat tatcaccaaa ctgcttagcc agaagccccc cgggaacaag 34320

agcaggggac gctacagtgc agtacaagcg cagacctccc caattggctc cagcaaaaac 34380

aagattggaa taagcatatt gggaaccgcc agtaatatca tcgaagttgc tggaaatata 34440

atcaggcaga gtttcttgta aaaattgaat aaaagaaaaa tttgccaaaa aaacattcaa 34500

aacctctggg atgcaaatgc aataggttac cgcgctgcgc tccaacattg ttagttttga 34560

attagtctgc aaaaataaaa aaaaaaacaa gcgtcatatc atagtagcct gacgaacaga 34620

tggataaatc agtctttcca tcacaagaca agccacaggg tctccagctc gaccctcgta 34680

aaacctgtca tcatgattaa acaacagcac cgaaagttcc tcgcggtgac cagcatgaat 34740

aattcttgat gaagcataca atccagacat gttagcatca gttaacgaga aaaaacagcc 34800

aacatagcct ttgggtataa ttatgcttaa tcgtaagtat agcaaagcca cccctcgcgg 34860

atacaaagta aaaggcacag gagaataaaa aatataatta tttctctgct gctgttcagg 34920

caacgtcgcc cccggtccct ctaaatacac atacaaagcc tcatcagcca tggcttacca 34980

gacaaagtac agcgggcaca caaagcacaa gctctaaagt gactctccaa cctctccaca 35040

atatatatat acacaagccc taaactgacg taatgggagt aaagtgtaaa aaatcccgcc 35100

aaacccaaca cacaccccga aactgcgtca ccagggaaaa gtacagtttc acttccgcaa 35160

tcccaacagg cgtaacttcc tctttctcac ggtacgtgat atcccactaa cttgcaacgt 35220

cattttccca cggtcgcacc gccccttta gccgttaacc ccacagccaa tcaccacacg 35280

atccacactt tttaaaatca cctcatttac atattggcac cattccatct ataaggtata 35340

ttatatagat aga 35353

<210> 25
<211> 33314
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-139 virus genome sequence consisting of a transgene cassette that encodes the cytokine, TNFa, inserted in the region BY

<400> 25
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

ctttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc gccatgagca ctgaaagcat gatccgggac 29400

gtggagctgg ccgaggaggc gctccccaag aagacagggg ggccccaggg ctccaggcgg 29460

tgcttgttcc tcagcctctt ctccttcctg atcgtggcag gcgccaccac gctcttctgc 29520

ctgctgcact ttggagtgat cggcccccag agggaagagt tccccaggga cctctctcta 29580

atcagccctc tggcccaggc agtcagatca tcttctcgaa ccccgagtga caagcctgta 29640

gcccatgttg tagcaaaccc tcaagctgag gggcagctcc agtggctgaa ccgccgggcc 29700

aatgccctcc tggccaatgg cgtggagctg agagataacc agctggtggt gccatcagag 29760

ggcctgtacc tcatctactc ccaggtcctc ttcaagggcc aaggctgccc ctccacccat 29820

gtgctcctca cccacaccat cagccgcatc gccgtctcct accagaccaa ggtcaacctc 29880

ctctctgcca tcaagagccc ctgccagagg gagaccccag agggggctga ggccaagccc 29940

tggtatgagc ccatctatct gggaggggtc ttccagctgg agaagggtga ccgactcagc 30000

gctgagatca atcggcccga ctatctcgac tttgccgagt ctgggcaggt ctactttggg 30060

atcattgccc tgtgagctag cttgactgac tgagatacag cgtaccttca gctcacagac 30120

atgataagat acattgatga gtttggacaa accacaacta gaatgcagtg aaaaaaatgc 30180

tttatttgtg aaatttgtga tgctattgct ttatttgtaa ccattataag ctgcaataaa 30240

caagttaaca acaacaattg cattcatttt atgtttcagg ttcaggggga ggtgtgggag 30300

gtttttttaaa gcaagtaaaa cctctacaaa tgtggtcctg caggaacttg tttatttgaa 30360

aatcaattca caaaatccga gtagttattt tgcctccccc ttcccattta acagaataca 30420

ccaatctctc cccacgcaca gctttaaaca tttggatacc attagatata gacatggttt 30480

tagattccac attccaaaca gtttcagagc gagccaatct ggggtcagtg atagataaaa 30540

atccatcggg atagtctttt aaagcgcttt cacagtccaa ctgctgcgga tgcgactccg 30600

gagtctggat cacggtcatc tggaagaaga acgatgggaa tcataatccg aaaacggtat 30660

cggacgattg tgtctcatca aacccacaag cagccgctgt ctgcgtcgct ccgtgcgact 30720

gctgtttatg ggatcagggt ccacagtgtc ctgaagcatg attttaatag cccttaacat 30780

caactttctg gtgcgatgcg cgcagcaacg cattctgatt tcactcaaat ctttgcagta 30840

ggtacaacac attattacaa tattgtttaa taaaccataa ttaaaagcgc tccagccaaa 30900

actcatatct gatataatcg cccctgcatg accatcatac caaagtttaa tataaattaa 30960

atgacgttcc ctcaaaaaca cactacccac atacatgatc tcttttggca tgtgcatatt 31020

aacaatctgt ctgtaccatg gacaacgttg gttaatcatg caacccaata taaccttccg 31080

gaaccacact gccaacaccg ctccccccagc catgcattga agtgaaccct gctgattaca 31140

atgacaatga agaacccaat tctctcgacc gtgaatcact tgagaatgaa aaatatctat 31200

agtggcacaa catagacata aatgcatgca tcttctcata atttttaact cctcaggatt 31260

tagaaacata tcccagggaa taggaagctc ttgcagaaca gtaaagctgg cagaacaagg 31320

aagaccacga acacaactta cactatgcat agtcatagta tcacaatctg gcaacagcgg 31380

gtggtcttca gtcatagaag ctcgggtttc attttcctca caacgtggta actgggctct 31440

ggtgtaaggg tgatgtctgg cgcatgatgt cgagcgtgcg cgcaaccttg tcataatgga 31500

gttgcttcct gacattctcg tattttgtat agcaaaacgc ggccctggca gaacacactc 31560

ttcttcgcct tctatcctgc cgcttagcgt gttccgtgtg atagttcaag tacaaccaca 31620

ctcttaagtt ggtcaaaaga atgctggctt cagttgtaat caaaactcca tcgcatctaa 31680

tcgttctgag gaaatcatcc aagcaatgca actggattgt gtttcaagca ggagaggaga 31740

gggaagagac ggaagaacca tgttaatttt tattccaaac gatctcgcag tacttcaaat 31800

tgtagatcgc gcagatggca tctctcgccc ccactgtgtt ggtgaaaaag cacagctaga 31860

tcaaaagaaa tgcgattttc aaggtgctca acggtggctt ccagcaaagc ctccacgcgc 31920

acatccaaga acaaaagaat accaaaagaa ggagcatttt ctaactcctc aatcatcata 31980

ttacattcct gcaccattcc cagataattt tcagctttcc agccttgaat tattcgtgtc 32040

agttcttgtg gtaaatccaa tccacacatt acaaacaggt cccggagggc gccctccacc 32100

accattctta aacacaccct cataatgaca aaatatcttg ctcctgtgtc acctgtagcg 32160

aattgagaat ggcaacatca attgacatgc ccttggctct aagttcttct ttaagttcta 32220

gttgtaaaaa ctctctcata ttatcaccaa actgcttagc cagaagcccc ccgggaacaa 32280

gagcagggga cgctacagtg cagtacaagc gcagacctcc ccaattggct ccagcaaaaa 32340

caagattgga ataagcatat tgggaaccgc cagtaatatc atcgaagttg ctggaaatat 32400

aatcaggcag agtttcttgt aaaaattgaa taaaagaaaa atttgccaaa aaaacattca 32460

aaacctctgg gatgcaaatg caataggtta ccgcgctgcg ctccaacatt gttagttttg 32520

aattagtctg caaaaataaa aaaaaaaaca agcgtcatat catagtagcc tgacgaacag 32580

atggataaat cagtctttcc atcacaagac aagccacagg gtctccagct cgaccctcgt 32640

aaaacctgtc atcatgatta aacaacagca ccgaaagttc ctcgcggtga ccagcatgaa 32700

taattcttga tgaagcatac aatccagaca tgttagcatc agttaacgag aaaaaacagc 32760

caacatagcc tttgggtata attatgctta atcgtaagta tagcaaagcc acccctcgcg 32820

gatacaaagt aaaaggcaca ggagaataaa aaatataatt atttctctgc tgctgttcag 32880

gcaacgtcgc ccccggtccc tctaaataca catacaaagc ctcatcagcc atggcttacc 32940

agacaaagta cagcgggcac acaaagcaca agctctaaag tgactctcca acctctccac 33000

aatatatata tacacaagcc ctaaactgac gtaatgggag taaagtgtaa aaaatcccgc 33060

caaacccaac acacaccccg aaactgcgtc accagggaaa agtacagttt cacttccgca 33120

atcccaacag gcgtaacttc ctctttctca cggtacgtga tatcccacta acttgcaacg 33180

tcattttccc acggtcgcac cgccccttt agccgttaac cccacagcca atcaccacac 33240

gatccacact ttttaaaatc acctcattta catattggca ccattccatc tataaggtat 33300

attatataga taga 33314

<210> 26
<211> 34493
<212> DNA
<213> Artificial Sequence

<220>
<223> A virus genome sequence consisting of a transgene cassette that encodes an anti-VEGF full length antibody inserted in the region BY. The transgene cassette contains a SSA, ab heavy chain sequence with 5' leader, a SSA,and ab light chain sequence

<400> 26

tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatgggat ggagctgtat catcctcttc 29400

ttggtagcaa cagctacagg tgtccactcc gaggttcagc tggtggagtc tggcggtggc 29460

ctggtgcagc cagggggctc actccgtttg tcctgtgcag cttctggcta taccttcacc 29520

aactatggta tgaactgggt ccgtcaggcc ccgggtaagg gcctggaatg ggttggatgg 29580

attaacacct ataccggtga accgacctat gctgcggatt tcaaacgtcg ttttactttt 29640

tctctggaca cctccaagag cacagcttac ctgcagatga acagcctgcg cgctgaggac 29700

actgccgtct attactgtgc aaagtacccg cactattatg ggagcagcca ctggtatttc 29760

gacgtctggg gtcaaggaac cctggtcacc gtctcctcgg cctccaccaa gggcccatcg 29820

gtcttccccc tggcaccctc ctccaagagc acctctgggg gcacagcggc cctgggctgc 29880

ctggtcaagg actacttccc cgaaccggtg acggtgtcgt ggaactcagg cgccctgacc 29940

agcggcgtgc acaccttccc ggctgtccta cagtcctcag gactctactc cctcagcagc 30000

gtggtgaccg tgccctccag cagcttgggc acccagacct acatctgcaa cgtgaatcac 30060

aagcccagca acaccaaggt cgacaagaaa gttgagccca aatcttgtga caaaactcac 30120

acatgcccac cgtgcccagc acctgagctc ctgggggggac cgtcagtctt cctcttcccc 30180

ccaaaaccca aggacaccct catgatctcc cggacccctg aggtcacatg cgtggtggtg 30240

gacgtgagcc acgaagaccc tgaggtcaag ttcaactggt acgtggacgg cgtggaggtg 30300

cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 30360

gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 30420

aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 30480

gaaccacagg tgtacaccct gcccccatcc cgggaggaga tgaccaagaa ccaggtcagc 30540

ctgacctgcc tggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 30600

gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc 30660

ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 30720

tgctccgtga tgcacgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 30780

ccgggtaaat gatctagact cgagcaggcg agcatggact ggacctggcg cgtgttttgc 30840

ctgctcgccg tggctcctgg ggcccacagc gatatccaga tgacccagtc cccgagctcc 30900

ctgtccgcct ctgtgggcga tagggtcacc atcacctgca gcgcaagtca ggatattagc 30960

aactatttaa actggtatca acagaaacca ggaaaagctc cgaaagtcct gatttacttc 31020

acctcctctc tccactctgg agtcccttct cgcttctctg gatccggttc tgggacggat 31080

ttcactctga ccatcagcag tctgcagcca gaagacttcg caacttatta ctgtcaacag 31140

tatagcaccg tgccgtggac gtttggacag ggtaccaagg tggagatcaa acgaactgtg 31200

gctgcaccat ctgtcttcat cttcccgcca tctgatgagc agttgaaatc tggaactgct 31260

tctgttgtgt gcctgctgaa taacttctat cccagagagg ccaaagtaca gtggaaggtg 31320

gataacgccc tccaatcggg taactcccag gagagtgtca cagagcagga cagcaaggac 31380

agcacctaca gcctcagcag caccctgacg ctgagcaaag cagactacga gaaacacaaa 31440

gtctacgcct gcgaagtcac ccatcagggc ctgagctcgc ccgtcacaaa gagcttcaac 31500

aggggagagt gttaacctgc aggaacttgt ttatttgaaa atcaattcac aaaatccgag 31560

tagttatttt gcctcccccc tcccatttaa cagaatacac caatctctcc ccacgcacag 31620

ctttaaacat ttggatacca ttagatatag acatggtttt agattccaca ttccaaacag 31680

tttcagagcg agccaatctg gggtcagtga tagataaaaa tccatcggga tagtctttta 31740

aagcgctttc acagtccaac tgctgcggat gcgactccgg agtctggatc acggtcatct 31800

ggaagaagaa cgatgggaat cataatccga aaacggtatc ggacgattgt gtctcatcaa 31860

acccacaagc agccgctgtc tgcgtcgctc cgtgcgactg ctgtttatgg gatcagggtc 31920

cacagtgtcc tgaagcatga ttttaatagc ccttaacatc aactttctgg tgcgatgcgc 31980

gcagcaacgc attctgattt cactcaaatc tttgcagtag gtacaacaca ttattacaat 32040

attgtttaat aaaccataat taaaagcgct ccagccaaaa ctcatatctg atataatcgc 32100

ccctgcatga ccatcatacc aaagtttaat ataaattaaa tgacgttccc tcaaaaacac 32160

actacccaca tacatgatct cttttggcat gtgcatatta acaatctgtc tgtaccatgg 32220

acaacgttgg ttaatcatgc aacccaatat aaccttccgg aaccacactg ccaacaccgc 32280

tcccccagcc atgcattgaa gtgaaccctg ctgattacaa tgacaatgaa gaacccaatt 32340

ctctcgaccg tgaatcactt gagaatgaaa aatatctata gtggcacaac atagacataa 32400

atgcatgcat cttctcataa tttttaactc ctcaggattt agaaacatat cccagggaat 32460

aggaagctct tgcagaacag taaagctggc agaacaagga agaccacgaa cacaacttac 32520

actatgcata gtcatagtat cacaatctgg caacagcggg tggtcttcag tcatagaagc 32580

tcgggtttca ttttcctcac aacgtggtaa ctgggctctg gtgtaagggt gatgtctggc 32640

gcatgatgtc gagcgtgcgc gcaaccttgt cataatggag ttgcttcctg acattctcgt 32700

atttgtata gcaaaacgcg gccctggcag aacacactct tcttcgcctt ctatcctgcc 32760

gcttagcgtg ttccgtgtga tagttcaagt acaaccacac tcttaagttg gtcaaaagaa 32820

tgctggcttc agttgtaatc aaaactccat cgcatctaat cgttctgagg aaatcatcca 32880

agcaatgcaa ctggattgtg tttcaagcag gagaggagag ggaagagacg gaagaaccat 32940

gttaattttt attccaaacg atctcgcagt acttcaaatt gtagatcgcg cagatggcat 33000

ctctcgcccc cactgtgttg gtgaaaaagc acagctagat caaaagaaat gcgattttca 33060

aggtgctcaa cggtggcttc cagcaaagcc tccacgcgca catccaagaa caaaagaata 33120

ccaaaagaag gagcattttc taactcctca atcatcatat tacattcctg caccattccc 33180

agataatttt cagctttcca gccttgaatt attcgtgtca gttcttgtgg taaatccaat 33240

ccacacatta caaacaggtc ccggagggcg ccctccacca ccattcttaa acacaccctc 33300

ataatgacaa aatatcttgc tcctgtgtca cctgtagcga attgagaatg gcaacatcaa 33360

ttgacatgcc cttggctcta agttcttctt taagttctag ttgtaaaaac tctctcatat 33420

tatcaccaaa ctgcttagcc agaagccccc cgggaacaag agcaggggac gctacagtgc 33480

agtacaagcg cagacctccc caattggctc cagcaaaaac aagattggaa taagcatatt 33540

gggaaccgcc agtaatatca tcgaagttgc tggaaatata atcaggcaga gtttcttgta 33600

aaaattgaat aaaagaaaaa tttgccaaaa aaacattcaa aacctctggg atgcaaatgc 33660

aataggttac cgcgctgcgc tccaacattg ttagttttga attagtctgc aaaaataaaa 33720

aaaaaaacaa gcgtcatatc atagtagcct gacgaacaga tggataaatc agtctttcca 33780

tcacaagaca agccacaggg tctccagctc gaccctcgta aaacctgtca tcatgattaa 33840

acaacagcac cgaaagttcc tcgcggtgac cagcatgaat aattcttgat gaagcataca 33900

atccagacat gttagcatca gttaacgaga aaaaacagcc aacatagcct ttgggtataa 33960

ttatgcttaa tcgtaagtat agcaaagcca cccctcgcgg atacaaagta aaaggcacag 34020

gagaataaaa aatataatta tttctctgct gctgttcagg caacgtcgcc cccggtccct 34080

ctaaatacac atacaaagcc tcatcagcca tggcttacca gacaaagtac agcgggcaca 34140

caaagcacaa gctctaaagt gactctccaa cctctccaca atatatatat acacaagccc 34200

taaactgacg taatgggagt aaagtgtaaa aaatcccgcc aaacccaaca cacaccccga 34260

aactgcgtca ccagggaaaa gtacagtttc acttccgcaa tcccaacagg cgtaacttcc 34320

tctttctcac ggtacgtgat atcccactaa cttgcaacgt cattttccca cggtcgcacc 34380

gcccctttta gccgttaacc ccacagccaa tcaccacacg atccacactt tttaaaatca 34440

cctcatttac atattggcac cattccatct ataaggtata ttatatagat aga 34493

<210> 27
<211> 34754
<212> DNA
<213> Artificial Sequence

<220>
<223> A virus genome sequence consisting of a transgene cassette that encodes an anti-VEGF full length antibody inserted in the region BY

<400> 27
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatgggat ggagctgtat catcctcttc 29400

ttggtagcaa cagctacagg tgtccactcc gaggttcagc tggtggagtc tggcggtggc 29460

ctggtgcagc cagggggctc actccgtttg tcctgtgcag cttctggcta taccttcacc 29520

aactatggta tgaactgggt ccgtcaggcc ccgggtaagg gcctggaatg ggttggatgg 29580

attaacacct ataccggtga accgacctat gctgcggatt tcaaacgtcg ttttactttt 29640

tctctggaca cctccaagag cacagcttac ctgcagatga acagcctgcg cgctgaggac 29700

actgccgtct attactgtgc aaagtacccg cactattatg ggagcagcca ctggtatttc 29760

gacgtctggg gtcaaggaac cctggtcacc gtctcctcgg cctccaccaa gggcccatcg 29820

gtcttccccc tggcaccctc ctccaagagc acctctgggg gcacagcggc cctgggctgc 29880

ctggtcaagg actacttccc cgaaccggtg acggtgtcgt ggaactcagg cgccctgacc 29940

agcggcgtgc acaccttccc ggctgtccta cagtcctcag gactctactc cctcagcagc 30000

gtggtgaccg tgccctccag cagcttgggc acccagacct acatctgcaa cgtgaatcac 30060

aagcccagca acaccaaggt cgacaagaaa gttgagccca aatcttgtga caaaactcac 30120

acatgcccac cgtgcccagc acctgagctc ctgggggggac cgtcagtctt cctcttcccc 30180

ccaaaaccca aggacaccct catgatctcc cggacccctg aggtcacatg cgtggtggtg 30240

gacgtgagcc acgaagaccc tgaggtcaag ttcaactggt acgtggacgg cgtggaggtg 30300

cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 30360

gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 30420

aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 30480

gaaccacagg tgtacaccct gcccccatcc cgggaggaga tgaccaagaa ccaggtcagc 30540

ctgacctgcc tggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 30600

gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc 30660

ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 30720

tgctccgtga tgcacgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 30780

ccgggtaaat gatctagact cgagcaggcc gacatggact ggacctggcg cgtgttttgc 30840

ctgctcgccg tggctcctgg ggcccacagc gatatccaga tgacccagtc cccgagctcc 30900

ctgtccgcct ctgtgggcga tagggtcacc atcacctgca gcgcaagtca ggatattagc 30960

aactatttaa actggtatca acagaaacca ggaaaagctc cgaaagtcct gatttacttc 31020

acctcctctc tccactctgg agtcccttct cgcttctctg gatccggttc tgggacggat 31080

ttcactctga ccatcagcag tctgcagcca gaagacttcg caacttatta ctgtcaacag 31140

tatagcaccg tgccgtggac gtttggacag ggtaccaagg tggagatcaa acgaactgtg 31200

gctgcaccat ctgtcttcat cttcccgcca tctgatgagc agttgaaatc tggaactgct 31260

tctgttgtgt gcctgctgaa taacttctat cccagagagg ccaaagtaca gtggaaggtg 31320

gataacgccc tccaatcggg taactcccag gagagtgtca cagagcagga cagcaaggac 31380

agcacctaca gcctcagcag caccctgacg ctgagcaaag cagactacga gaaacacaaa 31440

gtctacgcct gcgaagtcac ccatcagggc ctgagctcgc ccgtcacaaa gagcttcaac 31500

aggggagagt gttaagctag cttgactgac tgagatacag cgtaccttca gctcacagac 31560

atgataagat acattgatga gtttggacaa accacaacta gaatgcagtg aaaaaaatgc 31620

tttatttgtg aaatttgtga tgctattgct ttatttgtaa ccattataag ctgcaataaa 31680

caagttaaca acaacaattg cattcatttt atgtttcagg ttcaggggga ggtgtgggag 31740

gtttttaaa gcaagtaaaa cctctacaaa tgtggtcctg caggaacttg tttatttgaa 31800

aatcaattca caaaatccga gtagttattt tgcctccccc ttcccattta acagaataca 31860

ccaatctctc cccacgcaca gctttaaaca tttggatacc attagatata gacatggttt 31920

tagattccac attccaaaca gtttcagagc gagccaatct ggggtcagtg atagataaaa 31980

atccatcggg atagtctttt aaagcgcttt cacagtccaa ctgctgcgga tgcgactccg 32040

gagtctggat cacggtcatc tggaagaaga acgatgggaa tcataatccg aaaacggtat 32100

cggacgattg tgtctcatca aacccacaag cagccgctgt ctgcgtcgct ccgtgcgact 32160

gctgtttatg ggatcagggt ccacagtgtc ctgaagcatg attttaatag cccttaacat 32220

caactttctg gtgcgatgcg cgcagcaacg cattctgatt tcactcaaat ctttgcagta 32280

ggtacaacac attattacaa tattgtttaa taaaccataa ttaaaagcgc tccagccaaa 32340

actcatatct gatataatcg cccctgcatg accatcatac caaagtttaa tataaattaa 32400

atgacgttcc ctcaaaaaca cactacccac atacatgatc tcttttggca tgtgcatatt 32460

aacaatctgt ctgtaccatg gacaacgttg gttaatcatg caacccaata taaccttccg 32520

gaaccacact gccaacaccg ctccccccagc catgcattga agtgaaccct gctgattaca 32580

atgacaatga agaacccaat tctctcgacc gtgaatcact tgagaatgaa aaatatctat 32640

agtggcacaa catagacata aatgcatgca tcttctcata atttttaact cctcaggatt 32700

tagaaacata tcccagggaa taggaagctc ttgcagaaca gtaaagctgg cagaacaagg 32760

aagaccacga acacaactta cactatgcat agtcatagta tcacaatctg gcaacagcgg 32820

gtggtcttca gtcatagaag ctcgggtttc attttcctca caacgtggta actgggctct 32880

ggtgtaaggg tgatgtctgg cgcatgatgt cgagcgtgcg cgcaaccttg tcataatgga 32940

gttgcttcct gacattctcg tattttgtat agcaaaacgc ggccctggca gaacacactc 33000

ttcttcgcct tctatcctgc cgcttagcgt gttccgtgtg atagttcaag tacaaccaca 33060

ctcttaagtt ggtcaaaaga atgctggctt cagttgtaat caaaactcca tcgcatctaa 33120

tcgttctgag gaaatcatcc aagcaatgca actggattgt gtttcaagca ggagaggaga 33180

gggaagagac ggaagaacca tgttaatttt tattccaaac gatctcgcag tacttcaaat 33240

tgtagatcgc gcagatggca tctctcgccc ccactgtgtt ggtgaaaaag cacagctaga 33300

tcaaaagaaa tgcgattttc aaggtgctca acggtggctt ccagcaaagc ctccacgcgc 33360

acatccaaga acaaaagaat accaaaagaa ggagcatttt ctaactcctc aatcatcata 33420

ttacattcct gcaccattcc cagataattt tcagctttcc agccttgaat tattcgtgtc 33480

agttcttgtg gtaaatccaa tccacacatt acaaacaggt cccggagggc gccctccacc 33540

accattctta aacacaccct cataatgaca aaatatcttg ctcctgtgtc acctgtagcg 33600

aattgagaat ggcaacatca attgacatgc ccttggctct aagttcttct ttaagttcta 33660

gttgtaaaaa ctctctcata ttatcaccaa actgcttagc cagaagcccc ccgggaacaa 33720

gagcagggga cgctacagtg cagtacaagc gcagacctcc ccaattggct ccagcaaaaa 33780

caagattgga ataagcatat tgggaaccgc cagtaatatc atcgaagttg ctggaaatat 33840

aatcaggcag agtttcttgt aaaaattgaa taaaagaaaa atttgccaaa aaaacattca 33900

aaacctctgg gatgcaaatg caataggtta ccgcgctgcg ctccaacatt gttagttttg 33960

aattagtctg caaaaataaa aaaaaaaaca agcgtcatat catagtagcc tgacgaacag 34020

atggataaat cagtctttcc atcacaagac aagccacagg gtctccagct cgaccctcgt 34080

aaaacctgtc atcatgatta aacaacagca ccgaaagttc ctcgcggtga ccagcatgaa 34140

taattcttga tgaagcatac aatccagaca tgttagcatc agttaacgag aaaaaacagc 34200

caacatagcc tttgggtata attatgctta atcgtaagta tagcaaagcc acccctcgcg 34260

gatacaaagt aaaaggcaca ggagaataaa aaatataatt atttctctgc tgctgttcag 34320

gcaacgtcgc ccccggtccc tctaaataca catacaaagc ctcatcagcc atggcttacc 34380

agacaaagta cagcgggcac acaaagcaca agctctaaag tgactctcca acctctccac 34440

aatatatata tacacaagcc ctaaactgac gtaatgggag taaagtgtaa aaaatcccgc 34500

caaacccaac acacaccccg aaactgcgtc accagggaaa agtacagttt cacttccgca 34560

atcccaacag gcgtaacttc ctctttctca cggtacgtga tatcccacta acttgcaacg 34620

tcattttccc acggtcgcac cgccccttt agccgttaac cccacagcca atcaccacac 34680

gatccacact ttttaaaatc acctcattta catattggca ccattccatc tataaggtat 34740

attatataga taga 34754

<210> 28
<211> 34807
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-165 virus genome sequence consisting of a transgene cassette encoding an anti-VEGF full length antibody inserted into the region BY

<400> 28
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgta tcatcctctt 29400

cttggtagca acagctacag gtgtccactc cgaggttcag ctggtggagt ctggcggtgg 29460

cctggtgcag ccaggggct cactccgttt gtcctgtgca gcttctggct ataccttcac 29520

caactatggt atgaactggg tccgtcaggc cccgggtaag ggcctggaat gggttggatg 29580

gattaacacc tataccggtg aaccgaccta tgctgcggat ttcaaacgtc gttttacttt 29640

ttctctggac acctccaaga gcacagctta cctgcagatg aacagcctgc gcgctgagga 29700

cactgccgtc tattactgtg caaagtaccc gcactattat gggagcagcc actggtattt 29760

cgacgtctgg ggtcaaggaa ccctggtcac cgtctcctcg gcctccacca agggcccatc 29820

ggtcttcccc ctggcaccct cctccaagag cacctctggg ggcacagcgg ccctgggctg 29880

cctggtcaag gactacttcc ccgaaccggt gacggtgtcg tggaactcag gcgccctgac 29940

cagcggcgtg cacaccttcc cggctgtcct acagtcctca ggactctact ccctcagcag 30000

cgtggtgacc gtgccctcca gcagcttggg cacccagacc tacatctgca acgtgaatca 30060

caagcccagc aacaccaagg tcgacaagaa agttgagccc aaatcttgtg acaaaactca 30120

cacatgccca ccgtgcccag cacctgagct cctgggggga ccgtcagtct tcctcttccc 30180

cccaaaaccc aaggacaccc tcatgatctc ccggacccct gaggtcacat gcgtggtggt 30240

ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg tacgtggacg gcgtggaggt 30300

gcataatgcc aagacaaagc cgcgggagga gcagtacaac agcacgtacc gtgtggtcag 30360

cgtcctcacc gtcctgcacc aggactggct gaatggcaag gagtacaagt gcaaggtctc 30420

caacaaagcc ctcccagccc ccatcgagaa aaccatctcc aaagccaaag ggcagccccg 30480

agaaccacag gtgtacaccc tgcccccatc ccgggaggag atgaccaaga accaggtcag 30540

cctgacctgc ctggtcaaag gcttctatcc cagcgacatc gccgtggagt gggagagcaa 30600

tgggcagccg gagaacaact acaagaccac gcctcccgtg ctggactccg acggctcctt 30660

cttcctctac agcaagctca ccgtggacaa gagcaggtgg cagcagggga acgtcttctc 30720

atgctccgtg atgcacgagg ctctgcacaa ccactacacg cagaagagcc tctccctgtc 30780

tccgggtaaa ggaagcggag ctactaactt cagcctgctg aagcaggctg gagacgtgga 30840

ggagaaccct ggacctgact ggacctggcg cgtgttttgc ctgctcgccg tggctcctgg 30900

ggcccacagc gatatccaga tgacccagtc cccgagctcc ctgtccgcct ctgtgggcga 30960

tagggtcacc atcacctgca gcgcaagtca ggatattagc aactatttaa actggtatca 31020

acagaaacca ggaaaagctc cgaaagtcct gatttacttc acctcctctc tccactctgg 31080

agtcccttct cgcttctctg gatccggttc tgggacggat ttcactctga ccatcagcag 31140

tctgcagcca gaagacttcg caacttatta ctgtcaacag tatagcaccg tgccgtggac 31200

gtttggacag ggtaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtcttcat 31260

cttcccgcca tctgatgagc agttgaaatc tggaactgct tctgttgtgt gcctgctgaa 31320

taacttctat cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg 31380

taactcccag gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag 31440

caccctgacg ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac 31500

ccatcagggc ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gttaagctag 31560

cttgactgac tgagatacag cgtaccttca gctcacagac atgataagat acattgatga 31620

gtttggacaa accacaacta gaatgcagtg aaaaaaatgc tttatttgtg aaatttgtga 31680

tgctattgct ttatttgtaa ccattataag ctgcaataaa caagttaaca acaacaattg 31740

cattcatttt atgtttcagg ttcaggggga ggtgtgggag gtttttttaaa gcaagtaaaa 31800

cctctacaaa tgtggtagtc gtcagctatc ctgcaggaac ttgtttattt gaaaatcaat 31860

tcacaaaatc cgagtagtta ttttgcctcc cccttcccat ttaacagaat acaccaatct 31920

ctccccacgc acagctttaa acatttggat accattagat atagacatgg ttttagattc 31980

cacattccaa acagtttcag agcgagccaa tctggggtca gtgatagata aaaatccatc 32040

gggatagtct tttaaagcgc tttcacagtc caactgctgc ggatgcgact ccggagtctg 32100

gatcacggtc atctggaaga agaacgatgg gaatcataat ccgaaaacgg tatcggacga 32160

ttgtgtctca tcaaacccac aagcagccgc tgtctgcgtc gctccgtgcg actgctgttt 32220

atgggatcag ggtccacagt gtcctgaagc atgattttaa tagcccttaa catcaacttt 32280

ctggtgcgat gcgcgcagca acgcattctg atttcactca aatctttgca gtaggtacaa 32340

cacattatta caatattgtt taataaacca taattaaaag cgctccagcc aaaactcata 32400

tctgatataa tcgcccctgc atgaccatca taccaaagtt taatataaat taaatgacgt 32460

tccctcaaaa acacactacc cacatacatg atctcttttg gcatgtgcat attaacaatc 32520

tgtctgtacc atggacaacg ttggttaatc atgcaaccca atataacctt ccggaaccac 32580

actgccaaca ccgctccccc agccatgcat tgaagtgaac cctgctgatt acaatgacaa 32640

tgaagaaccc aattctctcg accgtgaatc acttgagaat gaaaaatatc tatagtggca 32700

caacatagac ataaatgcat gcatcttctc ataatttta actcctcagg atttagaaac 32760

atatcccagg gaataggaag ctcttgcaga acagtaaagc tggcagaaca aggaagacca 32820

cgaacacaac ttacactatg catagtcata gtatcacaat ctggcaacag cgggtggtct 32880

tcagtcatag aagctcgggt ttcattttcc tcacaacgtg gtaactgggc tctggtgtaa 32940

gggtgatgtc tggcgcatga tgtcgagcgt gcgcgcaacc ttgtcataat ggagttgctt 33000

cctgacattc tcgtattttg tatagcaaaa cgcggccctg gcagaacaca ctcttcttcg 33060

ccttctatcc tgccgcttag cgtgttccgt gtgatagttc aagtacaacc acactcttaa 33120

gttggtcaaa agaatgctgg cttcagttgt aatcaaaact ccatcgcatc taatcgttct 33180

gaggaaatca tccaagcaat gcaactggat tgtgtttcaa gcaggagagg agagggaaga 33240

gacggaagaa ccatgttaat ttttattcca aacgatctcg cagtacttca aattgtagat 33300

cgcgcagatg gcatctctcg cccccactgt gttggtgaaa aagcacagct agatcaaaag 33360

aaatgcgatt ttcaaggtgc tcaacggtgg cttccagcaa agcctccacg cgcacatcca 33420

agaacaaaag aataccaaaa gaaggagcat tttctaactc ctcaatcatc atattacatt 33480

cctgcaccat tcccagataa ttttcagctt tccagccttg aattattcgt gtcagttctt 33540

gtggtaaatc caatccacac attacaaaca ggtcccggag ggcgccctcc accaccattc 33600

ttaaacacac cctcataatg acaaaatatc ttgctcctgt gtcacctgta gcgaattgag 33660

aatggcaaca tcaattgaca tgcccttggc tctaagttct tctttaagtt ctagttgtaa 33720

aaactctctc atattatcac caaactgctt agccagaagc cccccgggaa caagagcagg 33780

ggacgctaca gtgcagtaca agcgcagacc tccccaattg gctccagcaa aaacaagatt 33840

ggaataagca tattgggaac cgccagtaat atcatcgaag ttgctggaaa tataatcagg 33900

cagagtttct tgtaaaaatt gaataaaaga aaaatttgcc aaaaaaacat tcaaaacctc 33960

tgggatgcaa atgcaatagg ttaccgcgct gcgctccaac attgttagtt ttgaattagt 34020

ctgcaaaaat aaaaaaaaaa acaagcgtca tatcatagta gcctgacgaa cagatggata 34080

aatcagtctt tccatcacaa gacaagccac agggtctcca gctcgaccct cgtaaaacct 34140

gtcatcatga ttaaacaaca gcaccgaaag ttcctcgcgg tgaccagcat gaataattct 34200

tgatgaagca tacaatccag acatgttagc atcagttaac gagaaaaaac agccaacata 34260

gcctttgggt ataattatgc ttaatcgtaa gtatagcaaa gccacccctc gcggatacaa 34320

agtaaaaggc acaggagaat aaaaaatata attatttctc tgctgctgtt caggcaacgt 34380

cgcccccggt ccctctaaat acacatacaa agcctcatca gccatggctt accagacaaa 34440

gtacagcggg cacacaaagc acaagctcta aagtgactct ccaacctctc cacaatatat 34500

atatacacaa gccctaaact gacgtaatgg gagtaaagtg taaaaaatcc cgccaaaccc 34560

aacacacacc ccgaaactgc gtcaccaggg aaaagtacag tttcacttcc gcaatcccaa 34620

caggcgtaac ttcctctttc tcacggtacg tgatatccca ctaacttgca acgtcatttt 34680

cccacggtcg caccgcccct tttagccgtt aaccccacag ccaatcacca cacgatccac 34740

acttttaaa atcacctcat ttacatattg gcaccattcc atctataagg tatattatat 34800

agataga 34807

<210> 29
<211> 33432
<212> DNA

<213> Artificial Sequence

<220>
<223> NG-167 virus genome sequence consisting of a transgene cassette
that encodes an anti-VEGF ScFv with a C-terminal His6 tag,
inserted in the region BY

<400> 29
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

aggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatgggat ggagctgtat catcctcttc 29400

ttggtagcaa cagctacagg tgtccactcc gaagtgcaac tggtggagtc tggcggaggt 29460

ctggtgcagc ctggaggctc tctcagactg tcatgcgctg caagcggttt taccatctct 29520

gactactgga tccattgggt gcgtcaggct cctggaaaag gccttgagtg ggttgcgggt 29580

ataactccag caggcgggta cacctactac gccgatagcg ttaaaggccg ctttaccatt 29640

agcgcggaca ccagcaagaa taccgcctat ctgcagatga actcactgag agcggaggat 29700

acagcagtgt actattgcgc aagattcgtg ttctttctgc catacgctat ggactattgg 29760

ggccaaggga cactggttac agtatcctcg ggtggcggtg gctcgggcgg tggtggatct 29820

ggtggcggcg gatctgacat ccagatgacc cagagcccat caagtctgtc cgccagcgtt 29880

ggcgatcgag tcaccattac ttgtagggct tctcaggacg tgtctacagc tgttgcttgg 29940

tatcagcaga aaccagggaa agcacccaaa cttctgatct actcagcttc cttcctgtac 30000

tcaggagttc ctagtcggtt tagtggcagc ggcagtggca cagacttcac gctcaccatt 30060

agcagtctcc agcctgagga ttttgccact tactactgtc agcaagggta tggaaatccc 30120

ttcacattcg ggcaaggaac caaagtcgag attaagaggc atcatcacca ccaccattaa 30180

gctagcttga ctgactgaga tacagcgtac cttcagctca cagacatgat aagatacatt 30240

gatgagtttg gacaaaccac aactagaatg cagtgaaaaa aatgctttat ttgtgaaatt 30300

tgtgatgcta ttgctttatt tgtaaccatt ataagctgca ataaacaagt taacaacaac 30360

aattgcattc attttatgtt tcaggttcag ggggaggtgt gggaggtttt ttaaagcaag 30420

taaaacctct acaaatgtgg tagtcgtcag ctatcctgca ggaacttgtt tatttgaaaa 30480

tcaattcaca aaatccgagt agttattttg cctccccctt cccatttaac agaatacacc 30540

aatctctccc cacgcacagc tttaaacatt tggataccat tagatataga catggtttta 30600

gattccacat tccaaacagt ttcagagcga gccaatctgg ggtcagtgat agataaaaat 30660

ccatcgggat agtcttttaa agcgctttca cagtccaact gctgcggatg cgactccgga 30720

gtctggatca cggtcatctg gaagaagaac gatgggaatc ataatccgaa aacggtatcg 30780

gacgattgtg tctcatcaaa cccacaagca gccgctgtct gcgtcgctcc gtgcgactgc 30840

tgtttatggg atcagggtcc acagtgtcct gaagcatgat tttaatagcc cttaacatca 30900

actttctggt gcgatgcgcg cagcaacgca ttctgatttc actcaaatct ttgcagtagg 30960

tacaacacat tattacaata ttgtttaata aaccataatt aaaagcgctc cagccaaaac 31020

tcatatctga tataatcgcc cctgcatgac catcatacca aagtttaata taaattaaat 31080

gacgttccct caaaaacaca ctacccacat acatgatctc ttttggcatg tgcatattaa 31140

caatctgtct gtaccatgga caacgttggt taatcatgca acccaatata accttccgga 31200

accacactgc caacaccgct cccccagcca tgcattgaag tgaaccctgc tgattacaat 31260

gacaatgaag aacccaattc tctcgaccgt gaatcacttg agaatgaaaa atatctatag 31320

tggcacaaca tagacataaa tgcatgcatc ttctcataat ttttaactcc tcaggattta 31380

gaaacatatc ccagggaata ggaagctctt gcagaacagt aaagctggca gaacaaggaa 31440

gaccacgaac acaacttaca ctatgcatag tcatagtatc acaatctggc aacagcgggt 31500

ggtcttcagt catagaagct cgggtttcat tttcctcaca acgtggtaac tgggctctgg 31560

tgtaagggtg atgtctggcg catgatgtcg agcgtgcgcg caaccttgtc ataatggagt 31620

tgcttcctga cattctcgta ttttgtatag caaaacgcgg ccctggcaga acacactctt 31680

cttcgccttc tatcctgccg cttagcgtgt tccgtgtgat agttcaagta caaccacact 31740

cttaagttgg tcaaaagaat gctggcttca gttgtaatca aaactccatc gcatctaatc 31800

gttctgagga aatcatccaa gcaatgcaac tggattgtgt ttcaagcagg agaggagagg 31860

gaagagacgg aagaaccatg ttaattttta ttccaaacga tctcgcagta cttcaaattg 31920

tagatcgcgc agatggcatc tctcgccccc actgtgttgg tgaaaaagca cagctagatc 31980

aaaagaaatg cgattttcaa ggtgctcaac ggtggcttcc agcaaagcct ccacgcgcac 32040

atccaagaac aaaagaatac caaaagaagg agcattttct aactcctcaa tcatcatatt 32100

acattcctgc accattccca gataattttc agctttccag ccttgaatta ttcgtgtcag 32160

ttcttgtggt aaatccaatc cacacattac aaacaggtcc cggagggcgc cctccaccac 32220

cattcttaaa cacaccctca taatgacaaa atatcttgct cctgtgtcac ctgtagcgaa 32280

ttgagaatgg caacatcaat tgacatgccc ttggctctaa gttcttcttt aagttctagt 32340

tgtaaaaact ctctcatatt atcaccaaac tgcttagcca gaagcccccc gggaacaaga 32400

gcaggggacg ctacagtgca gtacaagcgc agacctcccc aattggctcc agcaaaaaca 32460

agattggaat aagcatattg ggaaccgcca gtaatatcat cgaagttgct ggaaatataa 32520

tcaggcagag tttcttgtaa aaattgaata aaagaaaaat ttgccaaaaa aacattcaaa 32580

acctctggga tgcaaatgca ataggttacc gcgctgcgct ccaacattgt tagttttgaa 32640

ttagtctgca aaaataaaaa aaaaaacaag cgtcatatca tagtagcctg acgaacagat 32700

ggataaatca gtctttccat cacaagacaa gccacagggt ctccagctcg accctcgtaa 32760

aacctgtcat catgattaaa caacagcacc gaaagttcct cgcggtgacc agcatgaata 32820

attcttgatg aagcatacaa tccagacatg ttagcatcag ttaacgagaa aaaacagcca 32880

acatagcctt tgggtataat tatgcttaat cgtaagtata gcaaagccac ccctcgcgga 32940

tacaaagtaa aaggcacagg agaataaaaa atataattat ttctctgctg ctgttcaggc 33000

aacgtcgccc ccggtccctc taaatacaca tacaaagcct catcagccat ggcttaccag 33060

acaaagtaca gcgggcacac aaagcacaag ctctaaagtg actctccaac ctctccacaa 33120

tatatatata cacaagccct aaactgacgt aatgggagta aagtgtaaaa aatcccgcca 33180

aacccaacac acaccccgaa actgcgtcac cagggaaaag tacagtttca cttccgcaat 33240

cccaacaggc gtaacttcct ctttctcacg gtacgtgata tcccactaac ttgcaacgtc 33300

attttcccac ggtcgcaccg ccccttttag ccgttaaccc cacagccaat caccacacga 33360

tccacacttt ttaaaatcac ctcatttaca tattggcacc attccatcta taaggtatat 33420

tatatagata ga 33432

<210> 30
<211> 35334
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-177 virus genome sequence consisting of a transgene cassette encoding an anti-PD-L1 full length antibody inserted into the region BY

<400> 30
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt cattttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac ctttaaaggt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgca ttatcctgtt 29400

tctggttgct actgccactg gagtgcatag cgaggtacag cttgtcgagt ctggaggtgg 29460

gctggtacaa ccaggcggat ccctcagact gtcttgtgcc gcatctggct tcacgttcag 29520

cgatagttgg atacactggg tgaggcaggc accagggaaa ggtctggagt gggtggcttg 29580

gataagccca tatggtggct ccacatatta cgccgactca gtgaagggtc gcttcaccat 29640

ttctgctgat acgtcaaaga acacagccta tctccagatg aactcccttc gtgccgagga 29700

taccgctgtc tactattgtg cccggagaca ttggcctggc gggttcgact actggggaca 29760

ggggactctc gtcactgttt ctgcagcgtc tactaaaggg cccagcgtgt ttcctcttgc 29820

tccctccagt aagtcaacta gtggcggcac cgctgctttg ggctgcctgg tcaaggacta 29880

ttttccagag cctgtaaccg tgagctggaa tagtggagca ttgacctcag gagtgcacac 29940

atttcccgca gtgctgcagt caagcggact gtacagcctt tccagtgtgg tgaccgttcc 30000

ttcctcaagt ctgggcactc aaacctacat ctgcaacgtg aaccacaaac ccagcaatac 30060

caaagtcgac aagaaggttg agccgaagag ctgtgacaaa acgcacacat gccctccatg 30120

tcccgcccca gaactgctcg gtggaccgtc cgtgttcctg tttcctccga agcccaagga 30180

cacactgatg atcagtcgca ccccagaagt cacctgtgtg gtggtggcgg taagccacga 30240

agatcccgag gtcaagttca attggtatgt cgatggggtt gaggtccaca atgccaagac 30300

taagccaagg gaggaacagt atgccagcac ataccgagtc gtgtctgtgc tgaccgttct 30360

gcatcaggac tggctcaacg ggaaagagta caagtgcaaa gtgtccaaca aggcacttcc 30420

tgcccctatc gagaaaacca tcagcaaggc gaaaggtcag cccagagaac cacaagtcta 30480

cacactgcca ccctctcggg acgaactcac aaagaatcag gtgtcactga catgcttggt 30540

taaaggcttt taccccagcg atattgccgt ggaatgggaa tccaatgggc aacctgagaa 30600

caactacaag actacacctc ccgtattgga tagcgatgga agcttcttcc tgtactctaa 30660

gttgacggtt gacaaatcca ggtggcagca gggcaatgtg ttttcttgct ccgtaatgca 30720

tgaagctctg cataatcact atacccagaa atccctctca ctgagtccgg gcaaatgact 30780

cgaggtttct agaagttgtc tcctcctgca ctgactgact gacctaacgt tactggccga 30840

agccgcttgg aataaggccg gtgtgcgttt gtctatatgt tattttccac catattgccg 30900

tcttttggca atgtgagggc ccggaaacct ggccctgtct tcttgacgag cattcctagg 30960

ggtctttccc ctctcgccaa aggaatgcaa ggtctgttga atgtcgtgaa ggaagcagtt 31020

cctctggaag cttcttgaag acaaacaacg tctgtagcga ccctttgcag gcagcggaac 31080

cccccacctg gcgacaggtg cctctgcggc caaaagccac gtgtataaga tacacctgca 31140

aaggcggcac aaccccagtg ccacgttgtg agttggatag ttgtggaaag agtcaaatgg 31200

ctcccctcaa gcgtattcaa caaggggctg aaggatgccc agaaggtacc ccattgtatg 31260

ggatctgatc tggggcctcg gtgcacatgc ttttcatgtg tttagtcgag gttaaaaaac 31320

gtctaggccc cccgaaccac ggggacgtgg ttttcctttg aaaaacacga tgataataac 31380

atggactgga cctggcgcgt gttttgcctg ctcgccgtgg ctcctggggc ccacagcgat 31440

atccaaatga ctcagtctcc ctcttcactg tctgcaagcg ttggcgatag ggtgacaatt 31500

acctgtagag cgagtcagga cgtttcaacc gctgtagcct ggtaccagca gaaaccggga 31560

aaagccccta agctgctcat ttactccgct tcctttctct attccggagt gcctagccga 31620

tttagtggct ctggttcagg gactgacttc acactgacca tatccagtct gcaaccagag 31680

gatttcgcga cgtactactg tcagcagtat ctgtatcacc ccgctacatt tgggcaaggg 31740

acaaaagtgg agatcaaacg gactgtagcc gcacccagcg tgttcatctt tccaccctct 31800

gatgagcagc ttaagagcgg tacggcatct gtcgtgtgct tgctgaacaa cttctatcct 31860

cgtgaagcca aagtccagtg gaaggtggac aatgccttgc agtcaggcaa ctcacaggaa 31920

agcgtcactg aacaggacag caaggatagt acctacagcc tgtccagcac actgactctc 31980

tccaaagccg actatgagaa gcacaaggtt tacgcttgcg aagtgaccca tcaaggcctt 32040

agcagtccag tcaccaagtc cttcaatcgc ggagagtgct gagctagctt gactgactga 32100

gatacagcgt accttcagct cacagacatg ataagataca ttgatgagtt tggacaaacc 32160

acaactagaa tgcagtgaaa aaaatgcttt atttgtgaaa tttgtgatgc tattgcttta 32220

tttgtaacca ttataagctg caataaacaa gttaacaaca acaattgcat tcattttatg 32280

tttcaggttc agggggaggt gtgggaggtt ttttaaagca agtaaaacct ctacaaatgt 32340

ggtagtcgtc agctatcctg caggaacttg tttatttgaa aatcaattca caaaatccga 32400

gtagttattt tgcctccccc ttcccattta acagaataca ccaatctctc cccacgcaca 32460

gctttaaaca tttggatacc attagatata gacatggttt tagattccac attccaaaca 32520

gtttcagagc gagccaatct ggggtcagtg atagataaaa atccatcggg atagtctttt 32580

aaagcgcttt cacagtccaa ctgctgcgga tgcgactccg gagtctggat cacggtcatc 32640

tggaagaaga acgatgggaa tcataatccg aaaacggtat cggacgattg tgtctcatca 32700

aacccacaag cagccgctgt ctgcgtcgct ccgtgcgact gctgtttatg ggatcagggt 32760

ccacagtgtc ctgaagcatg attttaatag cccttaacat caactttctg gtgcgatgcg 32820

cgcagcaacg cattctgatt tcactcaaat ctttgcagta ggtacaacac attattacaa 32880

tattgtttaa taaaccataa ttaaaagcgc tccagccaaa actcatatct gatataatcg 32940

cccctgcatg accatcatac caaagtttaa tataaattaa atgacgttcc ctcaaaaaca 33000

cactacccac atacatgatc tcttttggca tgtgcatatt aacaatctgt ctgtaccatg 33060

gacaacgttg gttaatcatg caacccaata taaccttccg gaaccacact gccaacaccg 33120

ctcccccagc catgcattga agtgaaccct gctgattaca atgacaatga agaacccaat 33180

tctctcgacc gtgaatcact tgagaatgaa aaatatctat agtggcacaa catagacata 33240

aatgcatgca tcttctcata atttttaact cctcaggatt tagaaacata tcccagggaa 33300

taggaagctc ttgcagaaca gtaaagctgg cagaacaagg aagaccacga acacaactta 33360

cactatgcat agtcatagta tcacaatctg gcaacagcgg gtggtcttca gtcatagaag 33420

ctcgggtttc attttcctca caacgtggta actgggctct ggtgtaaggg tgatgtctgg 33480

cgcatgatgt cgagcgtgcg cgcaaccttg tcataatgga gttgcttcct gacattctcg 33540

tattttgtat agcaaaacgc ggccctggca gaacacactc ttcttcgcct tctatcctgc 33600

cgcttagcgt gttccgtgtg atagttcaag tacaaccaca ctcttaagtt ggtcaaaaga 33660

atgctggctt cagttgtaat caaaactcca tcgcatctaa tcgttctgag gaaatcatcc 33720

aagcaatgca actggattgt gtttcaagca ggagaggaga gggaagagac ggaagaacca 33780

tgttaatttt tattccaaac gatctcgcag tacttcaaat tgtagatcgc gcagatggca 33840

tctctcgccc ccactgtgtt ggtgaaaaag cacagctaga tcaaaagaaa tgcgattttc 33900

aaggtgctca acggtggctt ccagcaaagc ctccacgcgc acatccaaga acaaaagaat 33960

accaaaagaa ggagcatttt ctaactcctc aatcatcata ttacattcct gcaccattcc 34020

cagataattt tcagctttcc agccttgaat tattcgtgtc agttcttgtg gtaaatccaa 34080

tccacacatt acaaacaggt cccggagggc gccctccacc accattctta aacacaccct 34140

cataatgaca aaatatcttg ctcctgtgtc acctgtagcg aattgagaat ggcaacatca 34200

attgacatgc ccttggctct aagttcttct ttaagttcta gttgtaaaaa ctctctcata 34260

ttatcaccaa actgcttagc cagaagcccc ccgggaacaa gagcaggga cgctacagtg 34320

cagtacaagc gcagacctcc ccaattggct ccagcaaaaa caagattgga ataagcatat 34380

tgggaaccgc cagtaatatc atcgaagttg ctggaaatat aatcaggcag agtttcttgt 34440

aaaaattgaa taaaagaaaa atttgccaaa aaaacattca aaacctctgg gatgcaaatg 34500

caataggtta ccgcgctgcg ctccaacatt gttagttttg aattagtctg caaaaataaa 34560

aaaaaaaaca agcgtcatat catagtagcc tgacgaacag atggataaat cagtctttcc 34620

atcacaagac aagccacagg gtctccagct cgaccctcgt aaaacctgtc atcatgatta 34680

aacaacagca ccgaaagttc ctcgcggtga ccagcatgaa taattcttga tgaagcatac 34740

aatccagaca tgttagcatc agttaacgag aaaaaacagc caacatagcc tttgggtata 34800

attatgctta atcgtaagta tagcaaagcc acccctcgcg gatacaaagt aaaaggcaca 34860

ggagaataaa aaatataatt atttctctgc tgctgttcag gcaacgtcgc ccccggtccc 34920

tctaaataca catacaaagc ctcatcagcc atggcttacc agacaaagta cagcgggcac 34980

acaaagcaca agctctaaag tgactctcca acctctccac aatatatata tacacaagcc 35040

ctaaactgac gtaatgggag taaagtgtaa aaaatcccgc caaacccaac acacaccccg 35100

aaactgcgtc accagggaaa agtacagttt cacttccgca atcccaacag gcgtaacttc 35160

ctctttctca cggtacgtga tatcccacta acttgcaacg tcattttccc acggtcgcac 35220

cgccccttt agccgttaac cccacagcca atcaccacac gatccacact ttttaaaatc 35280

acctcattta catattggca ccattccatc tataaggtat attatataga taga 35334

<210> 31
<211> 32364
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-185 virus genome sequence consisting of the EnAd genome with unique restriction sites inserted into the BX and BY regions

<400> 31
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

ctttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta ctgcggccgc 28200

tatggccggc ctgaaatcag caataaggtc tctgttgaaa ttttctccca gcagcacctc 28260

acttccctct tcccaactct ggtattctaa accccgttca gcggcatact ttctccatac 28320

tttaaagggg atgtcaaatt ttagctcctc tcctgtaccc acaatcttca tgtctttctt 28380

cccagatgac caagagagtc cggctcagtg actccttcaa ccctgtctac ccctatgaag 28440

atgaaagcac ctcccaacac ccctttataa acccagggtt tatttcccca aatggcttca 28500

cacaaagccc aaacggagtt cttactttaa aatgtttaac cccactaaca accacaggcg 28560

gatctctaca gctaaaagtg ggagggggac ttacagtgga tgacaccaac ggtttttga 28620

aagaaaacat aagtgccacc acaccactcg ttaagactgg tcactctata ggtttaccac 28680

taggagccgg attgggaacg aatgaaaata aactttgtat caaattagga caaggactta 28740

cattcaattc aaacaacatt tgcattgatg acaatattaa caccttatgg acaggagtca 28800

accccaccga agccaactgt caaatcatga actccagtga atctaatgat tgcaaattaa 28860

ttctaacact agttaaaact ggagcactag tcactgcatt tgtttatgtt ataggagtat 28920

ctaacaattt taatatgcta actacacaca gaaatataaa ttttactgca gagctgtttt 28980

tcgattctac tggtaattta ctaactagac tctcatccct caaaactcca cttaatcata 29040

aatcaggaca aaacatggct actggtgcca ttactaatgc taaaggtttc atgcccagca 29100

cgactgccta tcctttcaat gataattcta gagaaaaaga aaactacatt tacggaactt 29160

gttactacac agctagtgat cgcactgctt ttcccattga catatctgtc atgcttaacc 29220

gaagagcaat aaatgacgag acatcatatt gtattcgtat aacttggtcc tggaacacag 29280

gagatgcccc agaggtgcaa acctctgcta caaccctagt cacctcccca tttacctttt 29340

actacatcag agaagacgac tgacaaataa agtttgcgat cgctaccctg caggaacttg 29400

tttatttgaa aatcaattca caaaatccga gtagttattt tgcctccccc ttcccattta 29460

acagaataca ccaatctctc cccacgcaca gctttaaaca tttggatacc attagatata 29520

gacatggttt tagattccac attccaaaca gtttcagagc gagccaatct ggggtcagtg 29580

atagataaaa atccatcggg atagtctttt aaagcgcttt cacagtccaa ctgctgcgga 29640

tgcgactccg gagtctggat cacggtcatc tggaagaaga acgatgggaa tcataatccg 29700

aaaacggtat cggacgattg tgtctcatca aacccacaag cagccgctgt ctgcgtcgct 29760

ccgtgcgact gctgtttatg ggatcagggt ccacagtgtc ctgaagcatg attttaatag 29820

cccttaacat caactttctg gtgcgatgcg cgcagcaacg cattctgatt tcactcaaat 29880

ctttgcagta ggtacaacac attattacaa tattgtttaa taaaccataa ttaaaagcgc 29940

tccagccaaa actcatatct gatataatcg cccctgcatg accatcatac caaagtttaa 30000

tataaattaa atgacgttcc ctcaaaaaca cactacccac atacatgatc tcttttggca 30060

tgtgcatatt aacaatctgt ctgtaccatg gacaacgttg gttaatcatg caacccaata 30120

taaccttccg gaaccacact gccaacaccg ctcccccagc catgcattga agtgaaccct 30180

gctgattaca atgacaatga agaacccaat tctctcgacc gtgaatcact tgagaatgaa 30240

aaatatctat agtggcacaa catagacata aatgcatgca tcttctcata atttttaact 30300

cctcaggatt tagaaacata tcccagggaa taggaagctc ttgcagaaca gtaaagctgg 30360

cagaacaagg aagaccacga acacaactta cactatgcat agtcatagta tcacaatctg 30420

gcaacagcgg gtggtcttca gtcatagaag ctcgggtttc attttcctca caacgtggta 30480

actgggctct ggtgtaaggg tgatgtctgg cgcatgatgt cgagcgtgcg cgcaaccttg 30540

tcataatgga gttgcttcct gacattctcg tattttgtat agcaaaacgc ggccctggca 30600

gaacacactc ttcttcgcct tctatcctgc cgcttagcgt gttccgtgtg atagttcaag 30660

tacaaccaca ctcttaagtt ggtcaaaaga atgctggctt cagttgtaat caaaactcca 30720

tcgcatctaa tcgttctgag gaaatcatcc aagcaatgca actggattgt gtttcaagca 30780

ggagaggaga gggaagagac ggaagaacca tgttaatttt tattccaaac gatctcgcag 30840

tacttcaaat tgtagatcgc gcagatggca tctctcgccc ccactgtgtt ggtgaaaaag 30900

cacagctaga tcaaaagaaa tgcgattttc aaggtgctca acggtggctt ccagcaaagc 30960

ctccacgcgc acatccaaga acaaaagaat accaaaagaa ggagcatttt ctaactcctc 31020

aatcatcata ttacattcct gcaccattcc cagataattt tcagctttcc agccttgaat 31080

tattcgtgtc agttcttgtg gtaaatccaa tccacacatt acaaacaggt cccggagggc 31140

gccctccacc accattctta aacacaccct cataatgaca aaatatcttg ctcctgtgtc 31200

acctgtagcg aattgagaat ggcaacatca attgacatgc ccttggctct aagttcttct 31260

ttaagttcta gttgtaaaaa ctctctcata ttatcaccaa actgcttagc cagaagcccc 31320

ccgggaacaa gagcagggga cgctacagtg cagtacaagc gcagacctcc ccaattggct 31380

ccagcaaaaa caagattgga ataagcatat tgggaaccgc cagtaatatc atcgaagttg 31440

ctggaaatat aatcaggcag agtttcttgt aaaaattgaa taaaagaaaa atttgccaaa 31500

aaaacattca aaacctctgg gatgcaaatg caataggtta ccgcgctgcg ctccaacatt 31560

gttagttttg aattagtctg caaaaataaa aaaaaaaaca agcgtcatat catagtagcc 31620

tgacgaacag atggataaat cagtctttcc atcacaagac aagccacagg gtctccagct 31680

cgaccctcgt aaaacctgtc atcatgatta aacaacagca ccgaaagttc ctcgcggtga 31740

ccagcatgaa taattcttga tgaagcatac aatccagaca tgttagcatc agttaacgag 31800

aaaaaacagc caacatagcc tttgggtata attatgctta atcgtaagta tagcaaagcc 31860

acccctcgcg gatacaaagt aaaaggcaca ggagaataaa aaatataatt atttctctgc 31920

tgctgttcag gcaacgtcgc ccccggtccc tctaaataca catacaaagc ctcatcagcc 31980

atggcttacc agacaaagta cagcgggcac acaaagcaca agctctaaag tgactctcca 32040

acctctccac aatatatata tacacaagcc ctaaactgac gtaatgggag taaagtgtaa 32100

aaaatcccgc caaacccaac acacaccccg aaactgcgtc accagggaaa agtacagttt 32160

cacttccgca atcccaacag gcgtaacttc ctctttctca cggtacgtga tatcccacta 32220

acttgcaacg tcattttccc acggtcgcac cgccccttt agccgttaac cccacagcca 32280

atcaccacac gatccacact ttttaaaatc acctcattta catattggca ccattccatc 32340

tataaggtat attatataga taga 32364

<210> 32
<211> 34792
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-190 virus genome sequence consisting of a transgene cassette encoding an anti-PD-L1 full length antibody inserted into the region BY

<400> 32
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgca ttatcctgtt 29400

tctggttgct actgccactg gagtgcatag cgaggtacag cttgtcgagt ctggaggtgg 29460

gctggtacaa ccaggcggat ccctcagact gtcttgtgcc gcatctggct tcacgttcag 29520

cgatagttgg atacactggg tgaggcaggc accagggaaa ggtctggagt gggtggcttg 29580

gataagccca tatggtggct ccacatatta cgccgactca gtgaagggtc gcttcaccat 29640

ttctgctgat acgtcaaaga acacagccta tctccagatg aactcccttc gtgccgagga 29700

taccgctgtc tactattgtg cccggagaca ttggcctggc gggttcgact actggggaca 29760

ggggactctc gtcactgttt ctgcagcgtc tactaaaggg cccagcgtgt ttcctcttgc 29820

tccctccagt aagtcaacta gtggcggcac cgctgctttg ggctgcctgg tcaaggacta 29880

ttttccagag cctgtaaccg tgagctggaa tagtggagca ttgacctcag gagtgcacac 29940

atttcccgca gtgctgcagt caagcggact gtacagcctt tccagtgtgg tgaccgttcc 30000

ttcctcaagt ctgggcactc aaacctacat ctgcaacgtg aaccacaaac ccagcaatac 30060

caaagtcgac aagaaggttg agccgaagag ctgtgacaaa acgcacacat gccctccatg 30120

tcccgcccca gaactgctcg gtggaccgtc cgtgttcctg tttcctccga agcccaagga 30180

cacactgatg atcagtcgca ccccagaagt cacctgtgtg gtggtggcgg taagccacga 30240

agatcccgag gtcaagttca attggtatgt cgatggggtt gaggtccaca atgccaagac 30300

taagccaagg gaggaacagt atgccagcac ataccgagtc gtgtctgtgc tgaccgttct 30360

gcatcaggac tggctcaacg ggaaagagta caagtgcaaa gtgtccaaca aggcacttcc 30420

tgcccctatc gagaaaacca tcagcaaggc gaaaggtcag cccagagaac cacaagtcta 30480

cacactgcca ccctctcggg acgaactcac aaagaatcag gtgtcactga catgcttggt 30540

taaaggcttt taccccagcg atattgccgt ggaatgggaa tccaatgggc aacctgagaa 30600

caactacaag actacacctc ccgtattgga tagcgatgga agcttcttcc tgtactctaa 30660

gttgacggtt gacaaatcca ggtggcagca gggcaatgtg ttttcttgct ccgtaatgca 30720

tgaagctctg cataatcact atacccagaa atccctctca ctgagtccgg gcaaaggaag 30780

cggagctact aacttcagcc tgctgaagca ggctggagac gtggaggaga accctggacc 30840

tgactggacc tggcgcgtgt tttgcctgct cgccgtggct cctggggccc acagcgatat 30900

ccaaatgact cagtctccct cttcactgtc tgcaagcgtt ggcgataggg tgacaattac 30960

ctgtagagcg agtcaggacg tttcaaccgc tgtagcctgg taccagcaga aaccgggaaa 31020

agcccctaag ctgctcattt actccgcttc ctttctctat tccggagtgc ctagccgatt 31080

tagtggctct ggttcaggga ctgacttcac actgaccata tccagtctgc aaccagagga 31140

tttcgcgacg tactactgtc agcagtatct gtatcacccc gctacatttg ggcaagggac 31200

aaaagtggag atcaaacgga ctgtagccgc acccagcgtg ttcatctttc caccctctga 31260

tgagcagctt aagagcggta cggcatctgt cgtgtgcttg ctgaacaact tctatcctcg 31320

tgaagccaaa gtccagtgga aggtggacaa tgccttgcag tcaggcaact cacaggaaag 31380

cgtcactgaa caggacagca aggatagtac ctacagcctg tccagcacac tgactctctc 31440

caaagccgac tatgagaagc acaaggttta cgcttgcgaa gtgacccatc aaggccttag 31500

cagtccagtc accaagtcct tcaatcgcgg agagtgctga gctagcttga ctgactgaga 31560

tacagcgtac cttcagctca cagacatgat aagatacatt gatgagtttg gacaaaccac 31620

aactagaatg cagtgaaaaa aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt 31680

tgtaaccatt ataagctgca ataaacaagt taacaacaac aattgcattc attttatgtt 31740

tcaggttcag ggggaggtgt gggaggtttt ttaaagcaag taaaacctct acaaatgtgg 31800

tagtcgtcag ctatcctgca ggaacttgtt tatttgaaaa tcaattcaca aaatccgagt 31860

agttattttg cctccccctt cccatttaac agaatacacc aatctctccc cacgcacagc 31920

tttaaacatt tggataccat tagatataga catggtttta gattccacat tccaaacagt 31980

ttcagagcga gccaatctgg ggtcagtgat agataaaaat ccatcgggat agtcttttaa 32040

agcgctttca cagtccaact gctgcggatg cgactccgga gtctggatca cggtcatctg 32100

gaagaagaac gatgggaatc ataatccgaa aacggtatcg gacgattgtg tctcatcaaa 32160

cccacaagca gccgctgtct gcgtcgctcc gtgcgactgc tgtttatggg atcagggtcc 32220

acagtgtcct gaagcatgat tttaatagcc cttaacatca actttctggt gcgatgcgcg 32280

cagcaacgca ttctgatttc actcaaatct ttgcagtagg tacaacacat tattacaata 32340

ttgtttaata aaccataatt aaaagcgctc cagccaaaac tcatatctga tataatcgcc 32400

cctgcatgac catcatacca aagtttaata taaattaaat gacgttccct caaaaacaca 32460

ctacccacat acatgatctc ttttggcatg tgcatattaa caatctgtct gtaccatgga 32520

caacgttggt taatcatgca acccaatata accttccgga accacactgc caacaccgct 32580

cccccagcca tgcattgaag tgaaccctgc tgattacaat gacaatgaag aacccaattc 32640

tctcgaccgt gaatcacttg agaatgaaaa atatctatag tggcacaaca tagacataaa 32700

tgcatgcatc ttctcataat ttttaactcc tcaggattta gaaacatatc ccagggaata 32760

ggaagctctt gcagaacagt aaagctggca gaacaaggaa gaccacgaac acaacttaca 32820

ctatgcatag tcatagtatc acaatctggc aacagcgggt ggtcttcagt catagaagct 32880

cgggtttcat tttcctcaca acgtggtaac tgggctctgg tgtaagggtg atgtctggcg 32940

catgatgtcg agcgtgcgcg caaccttgtc ataatggagt tgcttcctga cattctcgta 33000

ttttgtatag caaaacgcgg ccctggcaga acacactctt cttcgccttc tatcctgccg 33060

cttagcgtgt tccgtgtgat agttcaagta caaccacact cttaagttgg tcaaaagaat 33120

gctggcttca gttgtaatca aaactccatc gcatctaatc gttctgagga aatcatccaa 33180

gcaatgcaac tggattgtgt ttcaagcagg agaggagagg gaagagacgg aagaaccatg 33240

ttaattttta ttccaaacga tctcgcagta cttcaaattg tagatcgcgc agatggcatc 33300

tctcgccccc actgtgttgg tgaaaaagca cagctagatc aaaagaaatg cgattttcaa 33360

ggtgctcaac ggtggcttcc agcaaagcct ccacgcgcac atccaagaac aaaagaatac 33420

caaaagaagg agcattttct aactcctcaa tcatcatatt acattcctgc accattccca 33480

gataattttc agctttccag ccttgaatta ttcgtgtcag ttcttgtggt aaatccaatc 33540

cacacattac aaacaggtcc cggagggcgc cctccaccac cattcttaaa cacaccctca 33600

taatgacaaa atatcttgct cctgtgtcac ctgtagcgaa ttgagaatgg caacatcaat 33660

tgacatgccc ttggctctaa gttcttcttt aagttctagt tgtaaaaact ctctcatatt 33720

atcaccaaac tgcttagcca gaagcccccc gggaacaaga gcaggggacg ctacagtgca 33780

gtacaagcgc agacctcccc aattggctcc agcaaaaaca agattggaat aagcatattg 33840

ggaaccgcca gtaatatcat cgaagttgct ggaaatataa tcaggcagag tttcttgtaa 33900

aaattgaata aaagaaaaat ttgccaaaaa aacattcaaa acctctggga tgcaaatgca 33960

ataggttacc gcgctgcgct ccaacattgt tagttttgaa ttagtctgca aaaataaaaa 34020

aaaaaacaag cgtcatatca tagtagcctg acgaacagat ggataaatca gtctttccat 34080

cacaagacaa gccacagggt ctccagctcg accctcgtaa aacctgtcat catgattaaa 34140

caacagcacc gaaagttcct cgcggtgacc agcatgaata attcttgatg aagcatacaa 34200

tccagacatg ttagcatcag ttaacgagaa aaaacagcca acatagcctt tgggtataat 34260

tatgcttaat cgtaagtata gcaaagccac ccctcgcgga tacaaagtaa aaggcacagg 34320

agaataaaaa atataattat ttctctgctg ctgttcaggc aacgtcgccc ccggtccctc 34380

taaatacaca tacaaagcct catcagccat ggcttaccag acaaagtaca gcgggcacac 34440

aaagcacaag ctctaaagtg actctccaac ctctccacaa tatatatata cacaagccct 34500

aaactgacgt aatgggagta aagtgtaaaa aatcccgcca aacccaacac acaccccgaa 34560

actgcgtcac cagggaaaag tacagtttca cttccgcaat cccaacaggc gtaacttcct 34620

ctttctcacg gtacgtgata tcccactaac ttgcaacgtc attttcccac ggtcgcaccg 34680

ccccttttag ccgttaaccc cacagccaat caccacacga tccacacttt ttaaaatcac 34740

ctcatttaca tattggcacc attccatcta taaggtatat tatatagata ga 34792

<210> 33
<211> 33843
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-217 virus genome sequence consisting of a transgene cassette that encodes the tumour associated antigen, NY-ESO-1, inserted in the region BY

<400> 33
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

ttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct agtaatcaat tacggggtca 29400

ttagttcata gcccatatat ggagttccgc gttacataac ttacggtaaa tggcccgcct 29460

ggctgaccgc ccaacgaccc ccgcccattg acgtcaataa tgacgtatgt tcccatagta 29520

acgccaatag ggactttcca ttgacgtcaa tgggtggagt atttacggta aactgcccac 29580

ttggcagtac atcaagtgta tcatatgcca agtacgcccc ctattgacgt caatgacggt 29640

aaatggcccg cctggcatta tgcccagtac atgaccttat gggactttcc tacttggcag 29700

tacatctacg tattagtcat cgctattacc atgctgatgc ggttttggca gtacatcaat 29760

gggcgtggat agcggtttga ctcacgggga tttccaagtc tccaccccat tgacgtcaat 29820

gggagtttgt tttggcacca aaatcaacgg gactttccaa aatgtcgtaa caactccgcc 29880

ccattgacgc aaatgggcgg taggcgtgta cggtgggagg tctatataag cagagctggt 29940

ttagtgaacc gtcagatcag atctttgtcg atcctaccat ccactcgaca cacccgccag 30000

cggccgctgc caagcttccg agctctcgaa ttcaaaggag gtaccaccat gcaggccgaa 30060

ggccggggca caggggggttc gacgggcgat gctgatggcc caggaggccc tggcattcct 30120

gatggcccag ggggcaatgc tggcggccca ggagaggcgg gtgccacggg cggcagaggt 30180

ccccgggggcg caggggcagc aagggcctcg gggccgggag gaggcgcccc gcggggtccg 30240

catggcggcg cggcttcagg gctgaatgga tgctgcagat gcggggccag ggggccggag 30300

agccgcctgc ttgagttcta cctcgccatg cctttcgcga cacccatgga agcagagctg 30360

gcccgcagga gcctggccca ggatgcccca ccgcttcccg tgccaggggt gcttctgaag 30420

gagttcactg tgtccggcaa catactgact atccgactga ctgctgcaga ccaccgccaa 30480

ctgcagctct ccatcagctc ctgtctccag cagctttccc tgttgatgtg gatcacgcag 30540

tgctttctgc ccgtgttttt ggctcagcct ccctcagggc agaggcgcta agctagcttg 30600

actgactgag atacagcgta ccttcagctc acagacatga taagatacat tgatgagttt 30660

ggacaaacca caactagaat gcagtgaaaa aaatgcttta tttgtgaaat ttgtgatgct 30720

attgctttat ttgtaaccat tataagctgc aataaacaag ttaacaacaa caattgcatt 30780

cattttatgt ttcaggttca gggggaggtg tgggaggttt tttaaagcaa gtaaaacctc 30840

tacaaatgtg gtagtcgtca gctatcctgc aggaacttgt ttatttgaaa atcaattcac 30900

aaaatccgag tagttatttt gcctcccccc tcccatttaa cagaatacac caatctctcc 30960

ccacgcacag ctttaaacat ttggatacca ttagatatag acatggtttt agattccaca 31020

ttccaaacag tttcagagcg agccaatctg gggtcagtga tagataaaaa tccatcggga 31080

tagtctttta aagcgctttc acagtccaac tgctgcggat gcgactccgg agtctggatc 31140

acggtcatct ggaagaagaa cgatgggaat cataatccga aaacggtatc ggacgattgt 31200

gtctcatcaa acccacaagc agccgctgtc tgcgtcgctc cgtgcgactg ctgtttatgg 31260

gatcagggtc cacagtgtcc tgaagcatga ttttaatagc ccttaacatc aactttctgg 31320

tgcgatgcgc gcagcaacgc attctgattt cactcaaatc tttgcagtag gtacaacaca 31380

ttattacaat attgtttaat aaaccataat taaaagcgct ccagccaaaa ctcatatctg 31440

atataatcgc ccctgcatga ccatcatacc aaagtttaat ataaattaaa tgacgttccc 31500

tcaaaaacac actacccaca tacatgatct cttttggcat gtgcatatta acaatctgtc 31560

tgtaccatgg acaacgttgg ttaatcatgc aacccaatat aaccttccgg aaccacactg 31620

ccaacaccgc tcccccagcc atgcattgaa gtgaaccctg ctgattacaa tgacaatgaa 31680

gaacccaatt ctctcgaccg tgaatcactt gagaatgaaa aatatctata gtggcacaac 31740

atagacataa atgcatgcat cttctcataa tttttaactc ctcaggattt agaaacatat 31800

cccagggaat aggaagctct tgcagaacag taaagctggc agaacaagga agaccacgaa 31860

cacaacttac actatgcata gtcatagtat cacaatctgg caacagcggg tggtcttcag 31920

tcatagaagc tcgggtttca ttttcctcac aacgtggtaa ctgggctctg gtgtaagggt 31980

gatgtctggc gcatgatgtc gagcgtgcgc gcaaccttgt cataatggag ttgcttcctg 32040

acattctcgt attttgtata gcaaaacgcg gccctggcag aacacactct tcttcgcctt 32100

ctatcctgcc gcttagcgtg ttccgtgtga tagttcaagt acaaccacac tcttaagttg 32160

gtcaaaagaa tgctggcttc agttgtaatc aaaactccat cgcatctaat cgttctgagg 32220

aaatcatcca agcaatgcaa ctggattgtg tttcaagcag gagaggagag ggaagagacg 32280

gaagaaccat gttaattttt attccaaacg atctcgcagt acttcaaatt gtagatcgcg 32340

cagatggcat ctctcgcccc cactgtgttg gtgaaaaagc acagctagat caaaagaaat 32400

gcgattttca aggtgctcaa cggtggcttc cagcaaagcc tccacgcgca catccaagaa 32460

caaaagaata ccaaaagaag gagcattttc taactcctca atcatcatat tacattcctg 32520

caccattccc agataatttt cagctttcca gccttgaatt attcgtgtca gttcttgtgg 32580

taaatccaat ccacacatta caaacaggtc ccggagggcg ccctccacca ccattcttaa 32640

acacaccctc ataatgacaa aatatcttgc tcctgtgtca cctgtagcga attgagaatg 32700

gcaacatcaa ttgacatgcc cttggctcta agttcttctt taagttctag ttgtaaaaac 32760

tctctcatat tatcaccaaa ctgcttagcc agaagccccc cgggaacaag agcaggggac 32820

gctacagtgc agtacaagcg cagacctccc caattggctc cagcaaaaac aagattggaa 32880

taagcatatt gggaaccgcc agtaatatca tcgaagttgc tggaaatata atcaggcaga 32940

gtttcttgta aaaattgaat aaaagaaaaa tttgccaaaa aaacattcaa aacctctggg 33000

atgcaaatgc aataggttac cgcgctgcgc tccaacattg ttagttttga attagtctgc 33060

aaaaataaaa aaaaaaacaa gcgtcatatc atagtagcct gacgaacaga tggataaatc 33120

agtctttcca tcacaagaca agccacaggg tctccagctc gaccctcgta aaacctgtca 33180

tcatgattaa acaacagcac cgaaagttcc tcgcggtgac cagcatgaat aattcttgat 33240

gaagcataca atccagacat gttagcatca gttaacgaga aaaaacagcc aacatagcct 33300

ttgggtataa ttatgcttaa tcgtaagtat agcaaagcca cccctcgcgg atacaaagta 33360

aaaggcacag gagaataaaa aatataatta tttctctgct gctgttcagg caacgtcgcc 33420

cccggtccct ctaaatacac atacaaagcc tcatcagcca tggcttacca gacaaagtac 33480

agcgggcaca caaagcacaa gctctaaagt gactctccaa cctctccaca atatatatat 33540

acacaagccc taaactgacg taatgggagt aaagtgtaaa aaatcccgcc aaacccaaca 33600

cacaccccga aactgcgtca ccagggaaaa gtacagtttc acttccgcaa tcccaacagg 33660

cgtaacttcc tctttctcac ggtacgtgat atcccactaa cttgcaacgt cattttccca 33720

cggtcgcacc gccccttta gccgttaacc ccacagccaa tcaccacacg atccacactt 33780

tttaaaatca cctcatttac atattggcac cattccatct ataaggtata ttatatagat 33840

aga 33843

<210> 34
<211> 33770
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-220 virus genome sequence consisting of a transgene cassette that encodes the tumour associated antigen, NY-ESO-1, inserted in the region BY

<400> 34
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgcggctcc cgccagatct ctaccgggta ggggaggcgc 29400

ttttcccaag gcagtctgga gcatgcgctt tagcagcccc gctgggcact tggcgctaca 29460

caagtggcct ctggcctcgc acacattcca catccaccgg taggcgccaa ccggctccgt 29520

tctttggtgg ccccttcgcg ccaccttcta cccctcccct agtcaggaag ttcccccccg 29580

ccccgcagct cgcgtcatgc aggacgtgac aaatggaagt agcacgtctc actagtctcg 29640

tgcaaatgga cagcaccgct gagcaatgga agcgggtagg cccttggggc agcggccaat 29700

agcagctttg ctccttcgct ttctgggctc agaggctggg aaggggtggg tccgggggcg 29760

ggctcagggg cgggctcagg ggcggggcgg gcgcccgaag gtcctccgga ggcccggcat 29820

tccgcacgct tcaaaagcgc acgtctgccg cgctgttctc ttcttcctca tctccgggcc 29880

tttcgagatc tttgtcgatc ctaccatcca ctcgacacac ccgccagcgg ccgctgccaa 29940

gcttccgagc tctcgaattc aaaggaggta ccaccatgca ggccgaaggc cggggcacag 30000

ggggttcgac gggcgatgct gatggcccag gaggccctgg cattcctgat ggcccagggg 30060

gcaatgctgg cggcccagga gaggcgggtg ccacgggcgg cagaggtccc cggggcgcag 30120

gggcagcaag ggcctcgggg ccgggaggag gcgccccgcg gggtccgcat ggcggcgcgg 30180

cttcagggct gaatggatgc tgcagatgcg gggccagggg gccggagagc cgcctgcttg 30240

agttctacct cgccatgcct ttcgcgacac ccatggaagc agagctggcc cgcaggagcc 30300

tggcccagga tgccccaccg cttcccgtgc caggggtgct tctgaaggag ttcactgtgt 30360

ccggcaacat actgactatc cgactgactg ctgcagacca ccgccaactg cagctctcca 30420

tcagctcctg tctccagcag ctttccctgt tgatgtggat cacgcagtgc tttctgcccg 30480

tgtttttggc tcagcctccc tcagggcaga ggcgctaagc tagcttgact gactgagata 30540

cagcgtacct tcagctcaca gacatgataa gatacattga tgagtttgga caaaccacaa 30600

ctagaatgca gtgaaaaaaa tgctttattt gtgaaatttg tgatgctatt gctttatttg 30660

taaccattat aagctgcaat aaacaagtta acaacaacaa ttgcattcat tttatgtttc 30720

aggttcaggg ggaggtgtgg gaggtttttt aaagcaagta aaacctctac aaatgtggta 30780

gtcgtcagct atcctgcagg aacttgttta tttgaaaatc aattcacaaa atccgagtag 30840

ttattttgcc tccccttcc catttaacag aatacaccaa tctctcccca cgcacagctt 30900

taaacatttg gataccatta gatatagaca tggttttaga ttccacattc caaacagttt 30960

cagagcgagc caatctgggg tcagtgatag ataaaaatcc atcgggatag tcttttaaag 31020

cgctttcaca gtccaactgc tgcggatgcg actccggagt ctggatcacg gtcatctgga 31080

agaagaacga tgggaatcat aatccgaaaa cggtatcgga cgattgtgtc tcatcaaacc 31140

cacaagcagc cgctgtctgc gtcgctccgt gcgactgctg tttatgggat cagggtccac 31200

agtgtcctga agcatgattt taatagccct taacatcaac tttctggtgc gatgcgcgca 31260

gcaacgcatt ctgatttcac tcaaatcttt gcagtaggta caacacatta ttacaatatt 31320

gtttaataaa ccataattaa aagcgctcca gccaaaactc atatctgata taatcgcccc 31380

tgcatgacca tcataccaaa gtttaatata aattaaatga cgttccctca aaaacacact 31440

acccacatac atgatctctt ttggcatgtg catattaaca atctgtctgt accatggaca 31500

acgttggtta atcatgcaac ccaatataac cttccggaac cacactgcca acaccgctcc 31560

cccagccatg cattgaagtg aaccctgctg attacaatga caatgaagaa cccaattctc 31620

tcgaccgtga atcacttgag aatgaaaaat atctatagtg gcacaacata gacataaatg 31680

catgcatctt ctcataattt ttaactcctc aggatttaga aacatatccc agggaatagg 31740

aagctcttgc agaacagtaa agctggcaga acaaggaaga ccacgaacac aacttacact 31800

atgcatagtc atagtatcac aatctggcaa cagcgggtgg tcttcagtca tagaagctcg 31860

ggtttcattt tcctcacaac gtggtaactg ggctctggtg taagggtgat gtctggcgca 31920

tgatgtcgag cgtgcgcgca accttgtcat aatggagttg cttcctgaca ttctcgtatt 31980

ttgtatagca aaacgcggcc ctggcagaac acactcttct tcgccttcta tcctgccgct 32040

tagcgtgttc cgtgtgatag ttcaagtaca accacactct taagttggtc aaaagaatgc 32100

tggcttcagt tgtaatcaaa actccatcgc atctaatcgt tctgaggaaa tcatccaagc 32160

aatgcaactg gattgtgttt caagcaggag aggagaggga agagacggaa gaaccatgtt 32220

aatttttatt ccaaacgatc tcgcagtact tcaaattgta gatcgcgcag atggcatctc 32280

tcgcccccac tgtgttggtg aaaaagcaca gctagatcaa aagaaatgcg attttcaagg 32340

tgctcaacgg tggcttccag caaagcctcc acgcgcacat ccaagaacaa aagaatacca 32400

aaagaaggag cattttctaa ctcctcaatc atcatattac attcctgcac cattcccaga 32460

taattttcag ctttccagcc ttgaattatt cgtgtcagtt cttgtggtaa atccaatcca 32520

cacattacaa acaggtcccg gagggcgccc tccaccacca ttcttaaaca caccctcata 32580

atgacaaaat atcttgctcc tgtgtcacct gtagcgaatt gagaatggca acatcaattg 32640

acatgccctt ggctctaagt tcttctttaa gttctagttg taaaaactct ctcatattat 32700

caccaaactg cttagccaga agccccccgg gaacaagagc aggggacgct acagtgcagt 32760

acaagcgcag acctccccaa ttggctccag caaaaacaag attggaataa gcatattggg 32820

aaccgccagt aatatcatcg aagttgctgg aaatataatc aggcagagtt tcttgtaaaa 32880

attgaataaa agaaaaattt gccaaaaaaa cattcaaaac ctctgggatg caaatgcaat 32940

aggttaccgc gctgcgctcc aacattgtta gttttgaatt agtctgcaaa aataaaaaaa 33000

aaaacaagcg tcatatcata gtagcctgac gaacagatgg ataaatcagt ctttccatca 33060

caagacaagc cacagggtct ccagctcgac cctcgtaaaa cctgtcatca tgattaaaca 33120

acagcaccga aagttcctcg cggtgaccag catgaataat tcttgatgaa gcatacaatc 33180

cagacatgtt agcatcagtt aacgagaaaa aacagccaac atagcctttg ggtataatta 33240

tgcttaatcg taagtatagc aaagccaccc ctcgcggata caaagtaaaa ggcacaggag 33300

aataaaaaat ataattattt ctctgctgct gttcaggcaa cgtcgccccc ggtccctcta 33360

aatacacata caaagcctca tcagccatgg cttaccagac aaagtacagc gggcacacaa 33420

agcacaagct ctaaagtgac tctccaacct ctccacaata tatatataca caagccctaa 33480

actgacgtaa tgggagtaaa gtgtaaaaaa tcccgccaaa cccaacacac accccgaaac 33540

tgcgtcacca gggaaaagta cagtttcact tccgcaatcc caacaggcgt aacttcctct 33600

ttctcacggt acgtgatatc ccactaactt gcaacgtcat tttcccacgg tcgcaccgcc 33660

ccttttagcc gttaacccca cagccaatca ccacacgatc cacacttttt aaaatcacct 33720

catttacata ttggcaccat tccatctata aggtatatta tatagataga 33770

<210> 35
<211> 34792
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-221 virus genome sequence consisting of the EnAd genome with a transgene cassette that encodes an anti-PD-L1 ScFv with a C-terminal His6 tag, inserted in the region BY

<400> 35
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt cattttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac caccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgca ttatcctgtt 29400

tctggttgct actgccactg gagtgcatag cgaggtacag cttgtcgagt ctggaggtgg 29460

gctggtacaa ccaggcggat ccctcagact gtcttgtgcc gcatctggct tcacgttcag 29520

cgatagttgg atacactggg tgaggcaggc accagggaaa ggtctggagt gggtggcttg 29580

gataagccca tatggtggct ccacatatta cgccgactca gtgaagggtc gcttcaccat 29640

ttctgctgat acgtcaaaga acacagccta tctccagatg aactcccttc gtgccgagga 29700

taccgctgtc tactattgtg cccggagaca ttggcctggc gggttcgact actggggaca 29760

ggggactctc gtcactgttt ctgcagcgtc tactaaaggg cccagcgtgt ttcctcttgc 29820

tccctccagt aagtcaacta gtggcggcac cgctgctttg ggctgcctgg tcaaggacta 29880

ttttccagag cctgtaaccg tgagctggaa tagtggagca ttgacctcag gagtgcacac 29940

atttcccgca gtgctgcagt caagcggact gtacagcctt tccagtgtgg tgaccgttcc 30000

ttcctcaagt ctgggcactc aaacctacat ctgcaacgtg aaccacaaac ccagcaatac 30060

caaagtcgac aagaaggttg agccgaagag ctgtgacaaa acgcacacat gccctccatg 30120

tcccgcccca gaactgctcg gtggaccgtc cgtgttcctg tttcctccga agcccaagga 30180

cacactgatg atcagtcgca ccccagaagt cacctgtgtg gtggtggcgg taagccacga 30240

agatcccgag gtcaagttca attggtatgt cgatggggtt gaggtccaca atgccaagac 30300

taagccaagg gaggaacagt atgccagcac ataccgagtc gtgtctgtgc tgaccgttct 30360

gcatcaggac tggctcaacg ggaaagagta caagtgcaaa gtgtccaaca aggcacttcc 30420

tgcccctatc gagaaaacca tcagcaaggc gaaaggtcag cccagagaac cacaagtcta 30480

cacactgcca ccctctcggg acgaactcac aaagaatcag gtgtcactga catgcttggt 30540

taaaggcttt taccccagcg atattgccgt ggaatgggaa tccaatgggc aacctgagaa 30600

caactacaag actacacctc ccgtattgga tagcgatgga agcttcttcc tgtactctaa 30660

gttgacggtt gacaaatcca ggtggcagca gggcaatgtg ttttcttgct ccgtaatgca 30720

tgaagctctg cataatcact atacccagaa atccctctca ctgagtccgg gcaaaggaag 30780

cggagctact aacttcagcc tgctgaagca ggctggagac gtggaggaga accctggacc 30840

tgactggacc tggcgcgtgt tttgcctgct cgccgtggct cctggggccc acagcgatat 30900

ccaaatgact cagtctccct cttcactgtc tgcaagcgtt ggcgataggg tgacaattac 30960

ctgtagagcg agtcaggacg tttcaaccgc tgtagcctgg taccagcaga aaccgggaaa 31020

agcccctaag ctgctcattt actccgcttc ctttctctat tccggagtgc ctagccgatt 31080

tagtggctct ggttcaggga ctgacttcac actgaccata tccagtctgc aaccagagga 31140

tttcgcgacg tactactgtc agcagtatct gtatcacccc gctacatttg ggcaagggac 31200

aaaagtggag atcaaacgga ctgtagccgc acccagcgtg ttcatctttc caccctctga 31260

tgagcagctt aagagcggta cggcatctgt cgtgtgcttg ctgaacaact tctatcctcg 31320

tgaagccaaa gtccagtgga aggtggacaa tgccttgcag tcaggcaact cacaggaaag 31380

cgtcactgaa caggacagca aggatagtac ctacagcctg tccagcacac tgactctctc 31440

caaagccgac tatgagaagc acaaggttta cgcttgcgaa gtgacccatc aaggccttag 31500

cagtccagtc accaagtcct tcaatcgcgg agagtgctga gctagcttga ctgactgaga 31560

tacagcgtac cttcagctca cagacatgat aagatacatt gatgagtttg gacaaaccac 31620

aactagaatg cagtgaaaaa aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt 31680

tgtaaccatt ataagctgca ataaacaagt taacaacaac aattgcattc attttatgtt 31740

tcaggttcag ggggaggtgt gggaggtttt ttaaagcaag taaaacctct acaaatgtgg 31800

tagtcgtcag ctatcctgca ggaacttgtt tatttgaaaa tcaattcaca aaatccgagt 31860

agttattttg cctccccctt cccatttaac agaatacacc aatctctccc cacgcacagc 31920

tttaaacatt tggataccat tagatataga catggtttta gattccacat tccaaacagt 31980

ttcagagcga gccaatctgg ggtcagtgat agataaaaat ccatcgggat agtcttttaa 32040

agcgctttca cagtccaact gctgcggatg cgactccgga gtctggatca cggtcatctg 32100

gaagaagaac gatgggaatc ataatccgaa aacggtatcg gacgattgtg tctcatcaaa 32160

cccacaagca gccgctgtct gcgtcgctcc gtgcgactgc tgtttatggg atcagggtcc 32220

acagtgtcct gaagcatgat tttaatagcc cttaacatca actttctggt gcgatgcgcg 32280

cagcaacgca ttctgatttc actcaaatct ttgcagtagg tacaacacat tattacaata 32340

ttgtttaata aaccataatt aaaagcgctc cagccaaaac tcatatctga tataatcgcc 32400

cctgcatgac catcatacca aagtttaata taaattaaat gacgttccct caaaaacaca 32460

ctacccacat acatgatctc ttttggcatg tgcatattaa caatctgtct gtaccatgga 32520

caacgttggt taatcatgca acccaatata accttccgga accacactgc caacaccgct 32580

cccccagcca tgcattgaag tgaaccctgc tgattacaat gacaatgaag aacccaattc 32640

tctcgaccgt gaatcacttg agaatgaaaa atatctatag tggcacaaca tagacataaa 32700

tgcatgcatc ttctcataat ttttaactcc tcaggattta gaaacatatc ccagggaata 32760

ggaagctctt gcagaacagt aaagctggca gaacaaggaa gaccacgaac acaacttaca 32820

ctatgcatag tcatagtatc acaatctggc aacagcgggt ggtcttcagt catagaagct 32880

cgggtttcat tttcctcaca acgtggtaac tgggctctgg tgtaagggtg atgtctggcg 32940

catgatgtcg agcgtgcgcg caaccttgtc ataatggagt tgcttcctga cattctcgta 33000

ttttgtatag caaaacgcgg ccctggcaga acacactctt cttcgccttc tatcctgccg 33060

cttagcgtgt tccgtgtgat agttcaagta caaccacact cttaagttgg tcaaaagaat 33120

gctggcttca gttgtaatca aaactccatc gcatctaatc gttctgagga aatcatccaa 33180

gcaatgcaac tggattgtgt ttcaagcagg agaggagagg gaagagacgg aagaaccatg 33240

ttaattttta ttccaaacga tctcgcagta cttcaaattg tagatcgcgc agatggcatc 33300

tctcgccccc actgtgttgg tgaaaaagca cagctagatc aaaagaaatg cgattttcaa 33360

ggtgctcaac ggtggcttcc agcaaagcct ccacgcgcac atccaagaac aaaagaatac 33420

caaaagaagg agcattttct aactcctcaa tcatcatatt acattcctgc accattccca 33480

gataattttc agctttccag ccttgaatta ttcgtgtcag ttcttgtggt aaatccaatc 33540

cacacattac aaacaggtcc cggagggcgc cctccaccac cattcttaaa cacaccctca 33600

taatgacaaa atatcttgct cctgtgtcac ctgtagcgaa ttgagaatgg caacatcaat 33660

tgacatgccc ttggctctaa gttcttcttt aagttctagt tgtaaaaact ctctcatatt 33720

atcaccaaac tgcttagcca gaagcccccc gggaacaaga gcaggggacg ctacagtgca 33780

gtacaagcgc agacctcccc aattggctcc agcaaaaaca agattggaat aagcatattg 33840

ggaaccgcca gtaatatcat cgaagttgct ggaaatataa tcaggcagag tttcttgtaa 33900

aaattgaata aaagaaaaat ttgccaaaaa aacattcaaa acctctggga tgcaaatgca 33960

ataggttacc gcgctgcgct ccaacattgt tagttttgaa ttagtctgca aaaataaaaa 34020

aaaaaacaag cgtcatatca tagtagcctg acgaacagat ggataaatca gtctttccat 34080

cacaagacaa gccacagggt ctccagctcg accctcgtaa aacctgtcat catgattaaa 34140

caacagcacc gaaagttcct cgcggtgacc agcatgaata attcttgatg aagcatacaa 34200

tccagacatg ttagcatcag ttaacgagaa aaaacagcca acatagcctt tgggtataat 34260

tatgcttaat cgtaagtata gcaaagccac ccctcgcgga tacaaagtaa aaggcacagg 34320

agaataaaaa atataattat ttctctgctg ctgttcaggc aacgtcgccc ccggtccctc 34380

taaatacaca tacaaagcct catcagccat ggcttaccag acaaagtaca gcgggcacac 34440

aaagcacaag ctctaaagtg actctccaac ctctccacaa tatatatata cacaagccct 34500

aaactgacgt aatgggagta aagtgtaaaa aatcccgcca aacccaacac acaccccgaa 34560

actgcgtcac cagggaaaag tacagtttca cttccgcaat cccaacaggc gtaacttcct 34620

ctttctcacg gtacgtgata tcccactaac ttgcaacgtc attttcccac ggtcgcaccg 34680

ccccttttag ccgttaaccc cacagccaat caccacacga tccacacttt ttaaaatcac 34740

ctcatttaca tattggcacc attccatcta taaggtatat tatatagata ga 34792

<210> 36
<211> 35361
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-242 virus genome sequence consisting of a transgene cassette encoding an anti-CTLA-4 full length antibody inserted into the region BY

<400> 36
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgta tcatcctctt 29400

cttggtagca acagctacag gtgtccactc ccaggtgcag ctggtggagt ctgggggagg 29460

cgtggtccag cctgggaggt ccctgagact ctcctgtgca gcgtctggat tcaccttcag 29520

tagctatggc atgcactggg tccgccaggc tccaggcaag gggctggagt gggtggcagt 29580

tatatggtat gatggaagta ataaatacta tgcagactcc gtgaagggcc gattcaccat 29640

ctccagagac aattccaaga acacgctgta tctgcaaatg aacagcctga gagccgagga 29700

cacggctgtg tattactgtg cgagagatcc gaggggagct acccttttact actactacta 29760

cggtatggac gtctggggcc aagggaccac ggtcaccgtc tcctcagcct ccaccaaggg 29820

cccatcggtc ttccccctgg caccctcctc caagagcacc tctgggggca cagcggccct 29880

gggctgcctg gtcaaggact acttccccga accggtgacg gtgtcgtgga actcaggcgc 29940

cctgaccagc ggcgtgcaca ccttcccggc tgtcctacag tcctcaggac tctactccct 30000

cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc cagacctaca tctgcaacgt 30060

gaatcacaag cccagcaaca ccaaggtcga caagaaagtt gagcccaaat cttgtgacaa 30120

aactcacaca tgcccaccgt gcccagcacc tgagctcctg gggggaccgt cagtcttcct 30180

cttcccccca aaacccaagg acaccctcat gatctcccgg acccctgagg tcacatgcgt 30240

ggtggtggac gtgagccacg aagaccctga ggtcaagttc aactggtacg tggacggcgt 30300

ggaggtgcat aatgccaaga caaagccgcg ggaggagcag tacaacagca cgtaccgtgt 30360

ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat ggcaaggagt acaagtgcaa 30420

ggtctccaac aaagccctcc cagcccccat cgagaaaacc atctccaaag ccaaagggca 30480

gccccgagaa ccacaggtgt acaccctgcc cccatcccgg gaggagatga ccaagaacca 30540

ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc gacatcgccg tggagtggga 30600

gagcaatggg cagccggaga acaactacaa gaccacgcct cccgtgctgg actccgacgg 30660

ctccttcttc ctctacagca agctcaccgt ggacaagagc aggtggcagc aggggaacgt 30720

cttctcatgc tccgtgatgc acgaggctct gcacaaccac tacacgcaga agagcctctc 30780

cctgtctccg ggtaaatgat ctagactcga ggtttctaga agttgtctcc tcctgcactg 30840

actgactgac ctaacgttac tggccgaagc cgcttggaat aaggccggtg tgcgtttgtc 30900

tatatgttat tttccaccat attgccgtct tttggcaatg tgagggcccg gaaacctggc 30960

cctgtcttct tgacgagcat tcctaggggt ctttcccctc tcgccaaagg aatgcaaggt 31020

ctgttgaatg tcgtgaagga agcagttcct ctggaagctt cttgaagaca aacaacgtct 31080

gtagcgaccc tttgcaggca gcggaacccc ccacctggcg acaggtgcct ctgcggccaa 31140

aagccacgtg tataagatac acctgcaaag gcggcacaac cccagtgcca cgttgtgagt 31200

tggatagttg tggaaagagt caaatggctc ccctcaagcg tattcaacaa ggggctgaag 31260

gatgcccaga aggtacccca ttgtatggga tctgatctgg ggcctcggtg cacatgcttt 31320

tcatgtgttt agtcgaggtt aaaaaacgtc taggcccccc gaaccacggg gacgtggttt 31380

tcctttgaaa aacacgatga taataacatg gactggacct ggcgcgtgtt ttgcctgctc 31440

gccgtggctc ctggggccca cagcgatatc cagatgaccc agtctccatc ctccctgtct 31500

gcatctgtag gagacagagt caccatcact tgccgggcaa gtcagagcat taacagctat 31560

ttagattggt atcagcagaa accagggaaa gcccctaaac tcctgatcta tgctgcatcc 31620

agtttgcaaa gtggggtccc atcaaggttc agtggcagtg gatctgggac agatttcact 31680

ctcaccatca gcagtctgca acctgaagat tttgcaactt actactgtca acagtattac 31740

agtactccat tcactttcgg ccctgggacc aaagtggaaa tcaaacgaac tgtggctgca 31800

ccatctgtct tcatcttccc gccatctgat gagcagttga aatctggaac tgcttctgtt 31860

gtgtgcctgc tgaataactt ctatcccaga gaggccaaag tacagtggaa ggtggataac 31920

gccctccaat cgggtaactc ccaggagagt gtcacagagc aggacagcaa ggacagcacc 31980

tacagcctca gcagcaccct gacgctgagc aaagcagact acgagaaaca caaagtctac 32040

gcctgcgaag tcacccatca gggcctgagc tcgcccgtca caaagagctt caacagggga 32100

gagtgttaag ctagcttgac tgactgagat acagcgtacc ttcagctcac agacatgata 32160

agatacattg atgagtttgg acaaaccaca actagaatgc agtgaaaaaa atgctttatt 32220

tgtgaaattt gtgatgctat tgctttattt gtaaccatta taagctgcaa taaacaagtt 32280

aacaacaaca attgcattca ttttatgttt caggttcagg gggaggtgtg ggaggttttt 32340

taaagcaagt aaaacctcta caaatgtggt agtcgtcagc tatcctgcag gaacttgttt 32400

atttgaaaat caattcacaa aatccgagta gttattttgc ctccccccttc ccatttaaca 32460

gaatacacca atctctcccc acgcacagct ttaaacattt ggataccatt agatatagac 32520

atggttttag attccacatt ccaaacagtt tcagagcgag ccaatctggg gtcagtgata 32580

gataaaaatc catcgggata gtcttttaaa gcgctttcac agtccaactg ctgcggatgc 32640

gactccggag tctggatcac ggtcatctgg aagaagaacg atgggaatca taatccgaaa 32700

acggtatcgg acgattgtgt ctcatcaaac ccacaagcag ccgctgtctg cgtcgctccg 32760

tgcgactgct gtttatggga tcagggtcca cagtgtcctg aagcatgatt ttaatagccc 32820

ttaacatcaa ctttctggtg cgatgcgcgc agcaacgcat tctgatttca ctcaaatctt 32880

tgcagtaggt acaacacatt attacaatat tgtttaataa accataatta aaagcgctcc 32940

agccaaaact catatctgat ataatcgccc ctgcatgacc atcataccaa agtttaatat 33000

aaattaaatg acgttccctc aaaaacacac tacccacata catgatctct tttggcatgt 33060

gcatattaac aatctgtctg taccatggac aacgttggtt aatcatgcaa cccaatataa 33120

ccttccggaa ccacactgcc aacaccgctc ccccagccat gcattgaagt gaaccctgct 33180

gattacaatg acaatgaaga acccaattct ctcgaccgtg aatcacttga gaatgaaaaa 33240

tatctatagt ggcacaacat agacataaat gcatgcatct tctcataatt tttaactcct 33300

caggatttag aaacatatcc cagggaatag gaagctcttg cagaacagta aagctggcag 33360

aacaaggaag accacgaaca caacttacac tatgcatagt catagtatca caatctggca 33420

acagcgggtg gtcttcagtc atagaagctc gggtttcatt ttcctcacaa cgtggtaact 33480

gggctctggt gtaagggtga tgtctggcgc atgatgtcga gcgtgcgcgc aaccttgtca 33540

taatggagtt gcttcctgac attctcgtat tttgtatagc aaaacgcggc cctggcagaa 33600

cacactcttc ttcgccttct atcctgccgc ttagcgtgtt ccgtgtgata gttcaagtac 33660

aaccacactc ttaagttggt caaaagaatg ctggcttcag ttgtaatcaa aactccatcg 33720

catctaatcg ttctgaggaa atcatccaag caatgcaact ggattgtgtt tcaagcagga 33780

gaggagaggg aagagacgga agaaccatgt taatttttat tccaaacgat ctcgcagtac 33840

ttcaaattgt agatcgcgca gatggcatct ctcgccccca ctgtgttggt gaaaaagcac 33900

agctagatca aaagaaatgc gattttcaag gtgctcaacg gtggcttcca gcaaagcctc 33960

cacgcgcaca tccaagaaca aaagaatacc aaaagaagga gcattttcta actcctcaat 34020

catcatatta cattcctgca ccattcccag ataattttca gctttccagc cttgaattat 34080

tcgtgtcagt tcttgtggta aatccaatcc acacattaca aacaggtccc ggagggcgcc 34140

ctccaccacc attcttaaac acaccctcat aatgacaaaa tatcttgctc ctgtgtcacc 34200

tgtagcgaat tgagaatggc aacatcaatt gacatgccct tggctctaag ttcttcttta 34260

agttctagtt gtaaaaactc tctcatatta tcaccaaact gcttagccag aagccccccg 34320

ggaacaagag caggggacgc tacagtgcag tacaagcgca gacctcccca attggctcca 34380

gcaaaaacaa gattggaata agcatattgg gaaccgccag taatatcatc gaagttgctg 34440

gaaatataat caggcagagt ttcttgtaaa aattgaataa aagaaaaatt tgccaaaaaa 34500

acattcaaaa cctctgggat gcaaatgcaa taggttaccg cgctgcgctc caacattgtt 34560

agttttgaat tagtctgcaa aaataaaaaa aaaaacaagc gtcatatcat agtagcctga 34620

cgaacagatg gataaatcag tctttccatc acaagacaag ccacagggtc tccagctcga 34680

ccctcgtaaa acctgtcatc atgattaaac aacagcaccg aaagttcctc gcggtgacca 34740

gcatgaataa ttcttgatga agcatacaat ccagacatgt tagcatcagt taacgagaaa 34800

aaacagccaa catagccttt gggtataatt atgcttaatc gtaagtatag caaagccacc 34860

cctcgcggat acaaagtaaa aggcacagga gaataaaaaa tataattatt tctctgctgc 34920

tgttcaggca acgtcgcccc cggtccctct aaatacacat acaaagcctc atcagccatg 34980

gcttaccaga caaagtacag cgggcacaca aagcacaagc tctaaagtga ctctccaacc 35040

tctccacaat atatatatac acaagcccta aactgacgta atgggagtaa agtgtaaaaa 35100

atcccgccaa acccaacaca caccccgaaa ctgcgtcacc agggaaaagt acagtttcac 35160

ttccgcaatc ccaacaggcg taacttcctc tttctcacgg tacgtgatat cccactaact 35220

tgcaacgtca ttttcccacg gtcgcaccgc ccctttagc cgttaacccc acagccaatc 35280

accacacgat ccacactttt taaaatcacc tcatttacat attggcacca ttccatctat 35340

aaggtatatt atatagatag a 35361

<210> 37
<211> 33464
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-257 virus genome sequence comprising the EnAd genome with a transgene cassette encoding an anti-VEGF ScFv inserted into the region Bx

<400> 37
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta ctgcggccgc 28200

tgctaatcct ttctctcttc aggccaccat gggatggagc tgtatcatcc tcttcttggt 28260

agcaacagct acaggtgtcc actccgaggt tcagctggtg gagtctggcg gtggcctggt 28320

gcagccaggg ggctcactcc gtttgtcctg tgcagcttct ggctatacct tcaccaacta 28380

tggtatgaac tgggtccgtc aggccccggg taagggcctg gaatgggttg gatggattaa 28440

cacctatacc ggtgaaccga cctatgctgc ggatttcaaa cgtcgtttta ctttttctct 28500

ggacacctcc aagagcacag cttacctgca gatgaacagc ctgcgcgctg aggacactgc 28560

cgtctattac tgtgcaaagt acccgcacta ttatgggagc agccactggt atttcgacgt 28620

ctggggtcaa ggaaccctgg tcaccgtctc ctcgggtggc ggtggctcgg gcggtggtgg 28680

atctggtggc ggcggatctg atatccagat gacccagtcc ccgagctccc tgtccgcctc 28740

tgtgggcgat agggtcacca tcacctgcag cgcaagtcag gatattagca actatttaaa 28800

ctggtatcaa cagaaaccag gaaaagctcc gaaagtcctg atttacttca cctcctctct 28860

ccactctgga gtcccttctc gcttctctgg atccggttct gggacggatt tcactctgac 28920

catcagcagt ctgcagccag aagacttcgc aacttattac tgtcaacagt atagcaccgt 28980

gccgtggacg tttggacagg gtaccaaggt ggagatcaaa cgacatcatc accaccacca 29040

ttaagctagc ttgactgact gagatacagc gtaccttcag ctcacagaca tgataagata 29100

cattgatgag tttggacaaa ccacaactag aatgcagtga aaaaaatgct ttatttgtga 29160

aatttgtgat gctattgctt tatttgtaac cattataagc tgcaataaac aagttaacaa 29220

caacaattgc attcatttta tgtttcaggt tcaggggggag gtgtgggagg ttttttaaag 29280

caagtaaaac ctctacaaat gtgggccggc ctgaaatcag caataaggtc tctgttgaaa 29340

ttttctccca gcagcacctc acttccctct tcccaactct ggtattctaa accccgttca 29400

gcggcatact ttctccatac tttaaagggg atgtcaaatt ttagctcctc tcctgtaccc 29460

acaatcttca tgtctttctt cccagatgac caagagagtc cggctcagtg actccttcaa 29520

ccctgtctac ccctatgaag atgaaagcac ctcccaacac ccctttataa acccagggtt 29580

tatttcccca aatggcttca cacaaagccc aaacggagtt cttactttaa aatgtttaac 29640

cccactaaca accacaggcg gatctctaca gctaaaagtg ggagggggac ttacagtgga 29700

tgacaccaac ggtttttga aagaaaacat aagtgccacc acaccactcg ttaagactgg 29760

tcactctata ggtttaccac taggagccgg attgggaacg aatgaaaata aactttgtat 29820

caaattagga caaggactta cattcaattc aaacaacatt tgcattgatg acaatattaa 29880

caccttatgg acaggagtca accccaccga agccaactgt caaatcatga actccagtga 29940

atctaatgat tgcaaattaa ttctaacact agttaaaact ggagcactag tcactgcatt 30000

tgtttatgtt ataggagtat ctaacaattt taatatgcta actacacaca gaaatataaa 30060

ttttactgca gagctgtttt tcgattctac tggtaattta ctaactagac tctcatccct 30120

caaaactcca cttaatcata aatcaggaca aaacatggct actggtgcca ttactaatgc 30180

taaaggtttc atgcccagca cgactgccta tcctttcaat gataattcta gagaaaaaga 30240

aaactacatt tacggaactt gttactacac agctagtgat cgcactgctt ttcccattga 30300

catatctgtc atgcttaacc gaagagcaat aaatgacgag acatcatatt gtattcgtat 30360

aacttggtcc tggaacacag gagatgcccc agaggtgcaa acctctgcta caaccctagt 30420

cacctcccca tttacctttt actacatcag agaagacgac tgacaaataa agtttgcgat 30480

cgctaccctg caggaacttg tttatttgaa aatcaattca caaaatccga gtagttattt 30540

tgcctccccc ttcccattta acagaataca ccaatctctc cccacgcaca gctttaaaca 30600

tttggatacc attagatata gacatggttt tagattccac attccaaaca gtttcagagc 30660

gagccaatct ggggtcagtg atagataaaa atccatcggg atagtctttt aaagcgcttt 30720

cacagtccaa ctgctgcgga tgcgactccg gagtctggat cacggtcatc tggaagaaga 30780

acgatgggaa tcataatccg aaaacggtat cggacgattg tgtctcatca aacccacaag 30840

cagccgctgt ctgcgtcgct ccgtgcgact gctgtttatg ggatcagggt ccacagtgtc 30900

ctgaagcatg attttaatag cccttaacat caactttctg gtgcgatgcg cgcagcaacg 30960

cattctgatt tcactcaaat ctttgcagta ggtacaacac attattacaa tattgtttaa 31020

taaaccataa ttaaaagcgc tccagccaaa actcatatct gatataatcg cccctgcatg 31080

accatcatac caaagtttaa tataaattaa atgacgttcc ctcaaaaaca cactacccac 31140

atacatgatc tcttttggca tgtgcatatt aacaatctgt ctgtaccatg gacaacgttg 31200

gttaatcatg caacccaata taaccttccg gaaccacact gccaacaccg ctcccccagc 31260

catgcattga agtgaaccct gctgattaca atgacaatga agaacccaat tctctcgacc 31320

gtgaatcact tgagaatgaa aaatatctat agtggcacaa catagacata aatgcatgca 31380

tcttctcata atttttaact cctcaggatt tagaaacata tcccagggaa taggaagctc 31440

ttgcagaaca gtaaagctgg cagaacaagg aagaccacga acacaactta cactatgcat 31500

agtcatagta tcacaatctg gcaacagcgg gtggtcttca gtcatagaag ctcgggtttc 31560

attttcctca caacgtggta actgggctct ggtgtaaggg tgatgtctgg cgcatgatgt 31620

cgagcgtgcg cgcaaccttg tcataatgga gttgcttcct gacattctcg tattttgtat 31680

agcaaaacgc ggccctggca gaacacactc ttcttcgcct tctatcctgc cgcttagcgt 31740

gttccgtgtg atagttcaag tacaaccaca ctcttaagtt ggtcaaaaga atgctggctt 31800

cagttgtaat caaaactcca tcgcatctaa tcgttctgag gaaatcatcc aagcaatgca 31860

actggattgt gtttcaagca ggagaggaga gggaagagac ggaagaacca tgttaatttt 31920

tattccaaac gatctcgcag tacttcaaat tgtagatcgc gcagatggca tctctcgccc 31980

ccactgtgtt ggtgaaaaag cacagctaga tcaaaagaaa tgcgattttc aaggtgctca 32040

acggtggctt ccagcaaagc ctccacgcgc acatccaaga acaaaagaat accaaaagaa 32100

ggagcatttt ctaactcctc aatcatcata ttacattcct gcaccattcc cagataattt 32160

tcagctttcc agccttgaat tattcgtgtc agttcttgtg gtaaatccaa tccacacatt 32220

acaaacaggt cccggagggc gccctccacc accattctta aacacaccct cataatgaca 32280

aaatatcttg ctcctgtgtc acctgtagcg aattgagaat ggcaacatca attgacatgc 32340

ccttggctct aagttcttct ttaagttcta gttgtaaaaa ctctctcata ttatcaccaa 32400

actgcttagc cagaagcccc ccgggaacaa gagcagggga cgctacagtg cagtacaagc 32460

gcagacctcc ccaattggct ccagcaaaaa caagattgga ataagcatat tgggaaccgc 32520

cagtaatatc atcgaagttg ctggaaatat aatcaggcag agtttcttgt aaaaattgaa 32580

taaaagaaaa atttgccaaa aaaacattca aaacctctgg gatgcaaatg caataggtta 32640

ccgcgctgcg ctccaacatt gttagttttg aattagtctg caaaaataaa aaaaaaaaca 32700

agcgtcatat catagtagcc tgacgaacag atggataaat cagtctttcc atcacaagac 32760

aagccacagg gtctccagct cgaccctcgt aaaacctgtc atcatgatta aacaacagca 32820

ccgaaagttc ctcgcggtga ccagcatgaa taattcttga tgaagcatac aatccagaca 32880

tgttagcatc agttaacgag aaaaaacagc caacatagcc tttgggtata attatgctta 32940

atcgtaagta tagcaaagcc acccctcgcg gatacaaagt aaaaggcaca ggagaataaa 33000

aaatataatt atttctctgc tgctgttcag gcaacgtcgc ccccggtccc tctaaataca 33060

catacaaagc ctcatcagcc atggcttacc agacaaagta cagcgggcac acaaagcaca 33120

agctctaaag tgactctcca acctctccac aatatatata tacacaagcc ctaaactgac 33180

gtaatgggag taaagtgtaa aaaatcccgc caaacccaac acacaccccg aaactgcgtc 33240

accagggaaa agtacagttt cacttccgca atcccaacag gcgtaacttc ctctttctca 33300

cggtacgtga tatcccacta acttgcaacg tcattttccc acggtcgcac cgccccttt 33360

agccgttaac cccacagcca atcaccacac gatccacact ttttaaaatc acctcattta 33420

catattggca ccattccatc tataaggtat attatataga taga 33464

<210> 38
<211> 35501
<212> DNA
<213> Artificial Sequence

<220>
<223> NG258 virus genome sequence consisting of a transgene cassette encoding an anti-VEGF full length antibody inserted into the region BY

<400> 38
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

aggggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta ctgcggccgc 28200

tatggccggc ctgaaatcag caataaggtc tctgttgaaa ttttctccca gcagcacctc 28260

acttccctct tcccaactct ggtattctaa accccgttca gcggcatact ttctccatac 28320

tttaaagggg atgtcaaatt ttagctcctc tcctgtaccc acaatcttca tgtctttctt 28380

cccagatgac caagagagtc cggctcagtg actccttcaa ccctgtctac ccctatgaag 28440

atgaaagcac ctcccaacac ccctttataa acccagggtt tatttcccca aatggcttca 28500

cacaaagccc aaacggagtt cttactttaa aatgtttaac cccactaaca accacaggcg 28560

gatctctaca gctaaaagtg ggagggggac ttacagtgga tgacaccaac ggtttttga 28620

aagaaaacat aagtgccacc acaccactcg ttaagactgg tcactctata ggtttaccac 28680

taggagccgg attgggaacg aatgaaaata aactttgtat caaattagga caaggactta 28740

cattcaattc aaacaacatt tgcattgatg acaatattaa caccttatgg acaggagtca 28800

accccaccga agccaactgt caaatcatga actccagtga atctaatgat tgcaaattaa 28860

ttctaacact agttaaaact ggagcactag tcactgcatt tgtttatgtt ataggagtat 28920

ctaacaattt taatatgcta actacacaca gaaatataaa ttttactgca gagctgtttt 28980

tcgattctac tggtaattta ctaactagac tctcatccct caaaactcca cttaatcata 29040

aatcaggaca aaacatggct actggtgcca ttactaatgc taaaggtttc atgcccagca 29100

cgactgccta tcctttcaat gataattcta gagaaaaaga aaactacatt tacggaactt 29160

gttactacac agctagtgat cgcactgctt ttcccattga catatctgtc atgcttaacc 29220

gaagagcaat aaatgacgag acatcatatt gtattcgtat aacttggtcc tggaacacag 29280

gagatgcccc agaggtgcaa acctctgcta caaccctagt cacctcccca tttacctttt 29340

actacatcag agaagacgac tgacaaataa agtttgcgat cgcggctccc gccagatcta 29400

gtaatcaatt acggggtcat tagttcatag cccatatatg gagttccgcg ttacataact 29460

tacggtaaat ggcccgcctg gctgaccgcc caacgacccc cgcccattga cgtcaataat 29520

gacgtatgtt cccatagtaa cgccaatagg gactttccat tgacgtcaat gggtggagta 29580

tttacggtaa actgcccact tggcagtaca tcaagtgtat catatgccaa gtacgccccc 29640

tattgacgtc aatgacggta aatggcccgc ctggcattat gcccagtaca tgaccttatg 29700

ggactttcct acttggcagt acatctacgt attagtcatc gctattacca tgctgatgcg 29760

gttttggcag tacatcaatg ggcgtggata gcggtttgac tcacggggat ttccaagtct 29820

ccaccccatt gacgtcaatg ggagtttgtt ttggcaccaa aatcaacggg actttccaaa 29880

atgtcgtaac aactccgccc cattgacgca aatgggcggt aggcgtgtac ggtgggaggt 29940

ctatataagc agagctggtt tagtgaaccg tcagatcaga tctttgtcga tcctaccatc 30000

cactcgacac acccgccagc ggccgctgcc aagcttccga gctctcgaat tcaaaggagg 30060

tacccaccat gggatggagc tgtatcatcc tcttcttggt agcaacagct acaggtgtcc 30120

actccgaggt tcagctggtg gagtctggcg gtggcctggt gcagccaggg ggctcactcc 30180

gtttgtcctg tgcagcttct ggctatacct tcaccaacta tggtatgaac tgggtccgtc 30240

aggccccggg taagggcctg gaatgggttg gatggattaa cacctatacc ggtgaaccga 30300

cctatgctgc ggatttcaaa cgtcgtttta ctttttctct ggacacctcc aagagcacag 30360

cttacctgca gatgaacagc ctgcgcgctg aggacactgc cgtctattac tgtgcaaagt 30420

acccgcacta ttatgggagc agccactggt atttcgacgt ctggggtcaa ggaaccctgg 30480

tcaccgtctc ctcggcctcc accaagggcc catcggtctt ccccctggca ccctcctcca 30540

agagcacctc tgggggcaca gcggccctgg gctgcctggt caaggactac ttccccgaac 30600

cggtgacggt gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc ttcccggctg 30660

tcctacagtc ctcaggactc tactccctca gcagcgtggt gaccgtgccc tccagcagct 30720

tgggcaccca gacctacatc tgcaacgtga atcacaagcc cagcaacacc aaggtcgaca 30780

agaaagttga gcccaaatct tgtgacaaaa ctcacacatg cccaccgtgc ccagcacctg 30840

agctcctggg gggaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga 30900

tctcccggac ccctgaggtc acatgcgtgg tggtggacgt gagccacgaa gaccctgagg 30960

tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 31020

aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 31080

ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca gcccccatcg 31140

agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 31200

catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 31260

atcccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 31320

ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg 31380

acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcac gaggctctgc 31440

acaaccacta cacgcagaag agcctctccc tgtctccggg taaaggaagc ggagctacta 31500

acttcagcct gctgaagcag gctggagacg tggaggagaa ccctggacct gactggacct 31560

ggcgcgtgtt ttgcctgctc gccgtggctc ctggggccca cagcgatatc cagatgaccc 31620

agtccccgag ctccctgtcc gcctctgtgg gcgatagggt caccatcacc tgcagcgcaa 31680

gtcaggatat tagcaactat ttaaactggt atcaacagaa accaggaaaa gctccgaaag 31740

tcctgattta cttcacctcc tctctccact ctggagtccc ttctcgcttc tctggatccg 31800

gttctgggac ggatttcact ctgaccatca gcagtctgca gccagaagac ttcgcaactt 31860

attactgtca acagtatagc accgtgccgt ggacgtttgg acagggtacc aaggtggaga 31920

tcaaacgaac tgtggctgca ccatctgtct tcatcttccc gccatctgat gagcagttga 31980

aatctggaac tgcttctgtt gtgtgcctgc tgaataactt ctatcccaga gaggccaaag 32040

tacagtggaa ggtggataac gccctccaat cgggtaactc ccaggagagt gtcacagagc 32100

aggacagcaa ggacagcacc tacagcctca gcagcaccct gacgctgagc aaagcagact 32160

acgagaaaca caaagtctac gcctgcgaag tcacccatca gggcctgagc tcgcccgtca 32220

caaagagctt caacagggga gagtgttaag ctagcttgac tgactgagat acagcgtacc 32280

ttcagctcac agacatgata agatacattg atgagtttgg acaaaccaca actagaatgc 32340

agtgaaaaaa atgctttatt tgtgaaattt gtgatgctat tgctttattt gtaaccatta 32400

taagctgcaa taaacaagtt aacaacaaca attgcattca ttttatgttt caggttcagg 32460

gggaggtgtg ggaggttttt taaagcaagt aaaacctcta caaatgtggt agtcgtcagc 32520

tatcctgcag gaacttgttt atttgaaaat caattcacaa aatccgagta gttattttgc 32580

ctccccccttc ccatttaaca gaatacacca atctctcccc acgcacagct ttaaacattt 32640

ggataccatt agatatagac atggttttag attccacatt ccaaacagtt tcagagcgag 32700

ccaatctggg gtcagtgata gataaaaatc catcgggata gtcttttaaa gcgctttcac 32760

agtccaactg ctgcggatgc gactccggag tctggatcac ggtcatctgg aagaagaacg 32820

atgggaatca taatccgaaa acggtatcgg acgattgtgt ctcatcaaac ccacaagcag 32880

ccgctgtctg cgtcgctccg tgcgactgct gtttatggga tcagggtcca cagtgtcctg 32940

aagcatgatt ttaatagccc ttaacatcaa ctttctggtg cgatgcgcgc agcaacgcat 33000

tctgatttca ctcaaatctt tgcagtaggt acaacacatt attacaatat tgtttaataa 33060

accataatta aaagcgctcc agccaaaact catatctgat ataatcgccc ctgcatgacc 33120

atcataccaa agtttaatat aaattaaatg acgttccctc aaaaacacac tacccacata 33180

catgatctct tttggcatgt gcatattaac aatctgtctg taccatggac aacgttggtt 33240

aatcatgcaa cccaatataa ccttccggaa ccacactgcc aacaccgctc ccccagccat 33300

gcattgaagt gaaccctgct gattacaatg acaatgaaga acccaattct ctcgaccgtg 33360

aatcacttga gaatgaaaaa tatctatagt ggcacaacat agacataaat gcatgcatct 33420

tctcataatt tttaactcct caggatttag aaacatatcc cagggaatag gaagctcttg 33480

cagaacagta aagctggcag aacaaggaag accacgaaca caacttacac tatgcatagt 33540

catagtatca caatctggca acagcgggtg gtcttcagtc atagaagctc gggtttcatt 33600

ttcctcacaa cgtggtaact gggctctggt gtaagggtga tgtctggcgc atgatgtcga 33660

gcgtgcgcgc aaccttgtca taatggagtt gcttcctgac attctcgtat tttgtatagc 33720

aaaacgcggc cctggcagaa cacactcttc ttcgccttct atcctgccgc ttagcgtgtt 33780

ccgtgtgata gttcaagtac aaccacactc ttaagttggt caaaagaatg ctggcttcag 33840

ttgtaatcaa aactccatcg catctaatcg ttctgaggaa atcatccaag caatgcaact 33900

ggattgtgtt tcaagcagga gaggagaggg aagagacgga agaaccatgt taatttttat 33960

tccaaacgat ctcgcagtac ttcaaattgt agatcgcgca gatggcatct ctcgccccca 34020

ctgtgttggt gaaaaagcac agctagatca aaagaaatgc gattttcaag gtgctcaacg 34080

gtggcttcca gcaaagcctc cacgcgcaca tccaagaaca aaagaatacc aaaagaagga 34140

gcattttcta actcctcaat catcatatta cattcctgca ccattcccag ataattttca 34200

gctttccagc cttgaattat tcgtgtcagt tcttgtggta aatccaatcc acacattaca 34260

aacaggtccc ggagggcgcc ctccaccacc attcttaaac acaccctcat aatgacaaaa 34320

tatcttgctc ctgtgtcacc tgtagcgaat tgagaatggc aacatcaatt gacatgccct 34380

tggctctaag ttcttcttta agttctagtt gtaaaaactc tctcatatta tcaccaaact 34440

gcttagccag aagccccccg ggaacaagag caggggacgc tacagtgcag tacaagcgca 34500

gacctcccca attggctcca gcaaaaacaa gattggaata agcatattgg gaaccgccag 34560

taatatcatc gaagttgctg gaaatataat caggcagagt ttcttgtaaa aattgaataa 34620

aagaaaaatt tgccaaaaaa acattcaaaa cctctgggat gcaaatgcaa taggttaccg 34680

cgctgcgctc caacattgtt agttttgaat tagtctgcaa aaataaaaaa aaaaacaagc 34740

gtcatatcat agtagcctga cgaacagatg gataaatcag tctttccatc acaagacaag 34800

ccacagggtc tccagctcga ccctcgtaaa acctgtcatc atgattaaac aacagcaccg 34860

aaagttcctc gcggtgacca gcatgaataa ttcttgatga agcatacaat ccagacatgt 34920

tagcatcagt taacgagaaa aaacagccaa catagccttt gggtataatt atgcttaatc 34980

gtaagtatag caaagccacc cctcgcggat acaaagtaaa aggcacagga gaataaaaaa 35040

tataattatt tctctgctgc tgttcaggca acgtcgcccc cggtccctct aaatacacat 35100

acaaagcctc atcagccatg gcttaccaga caaagtacag cgggcacaca aagcacaagc 35160

tctaaagtga ctctccaacc tctccacaat atatatatac acaagcccta aactgacgta 35220

atgggagtaa agtgtaaaaa atcccgccaa acccaacaca caccccgaaa ctgcgtcacc 35280

agggaaaagt acagtttcac ttccgcaatc ccaacaggcg taacttcctc tttctcacgg 35340

tacgtgatat cccactaact tgcaacgtca ttttcccacg gtcgcaccgc ccctttagc 35400

cgttaacccc acagccaatc accacacgat ccacactttt taaaatcacc tcatttacat 35460

attggcacca ttccatctat aaggtatatt atatagatag a 35501

<210> 39
<211> 34327
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-272 virus genome sequence comprising the EnAd genome with a transgene cassette encoding an anti-VEGF ScFv and an anti-PD-L1 ScFv inserted into the region BY

<400> 39
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgca tcatactgtt 29400

cctggttgcc acagctacag gggtacactc cgaagtccag ctcgttgaaa gcggaggcgg 29460

gttggtccaa cctggcggct cacttcggct ttcctgtgca gctagtgggt tcacctttc 29520

cgatagctgg atacactggg tgagacaggc tccaggcaaa ggcttggaat gggtcgcctg 29580

gattagcccc tatggaggca gcacctatta cgccgattct gtgaagggga ggttcacaat 29640

ctccgccgat accagtaaga acacagccta tctgcagatg aatagtctcc gagccgagga 29700

cactgcagtg tactactgcg ctaggcgtca ttggccagga ggctttgact actggggtca 29760

aggtaccctc gtgactgtga gtgcaggtgg cggtggctcg ggcggtggtg gatctggtgg 29820

cggcggatct gacatccaga tgacacagag ccctagctca ctgtctgcga gcgtaggcga 29880

cagagtgacc atcacttgtc gggcttccca ggatgtgtcc acagccgttg catggtacca 29940

gcagaaaccc gggaaagcac caaagctgct gatctacagc gcttctttcc tgtactcagg 30000

cgtgcctagc cgctttagtg ggtctggttc tgggactgac ttcaccctca cgatttcctc 30060

actgcaaccc gaggattttg cgacctatta ctgccagcag tatctgtatc atccggccac 30120

ttttgggcaa ggcacgaagg tcgagattaa gcgccatcat caccaccacc acggaagcgg 30180

agctactaac ttcagcctgc tgaagcaggc tggagacgtg gaggagaacc ctggacctgg 30240

ttggtcgtgt ataatcctat ttctcgtagc aactgcgact ggcgtccata gtgaggttca 30300

gctggtggag tctggcggtg gcctggtgca gccaggggt tcactccgtt tgtcttgtgc 30360

ggcttctggc tataccttca ccaactatgg tatgaactgg gtccgtcagg ccccgggtaa 30420

gggcctggag tgggttggat ggattaacac ctataccggt gaaccgacct atgctgcgga 30480

tttcaaacgt cgttttactt tttctctgga cacctccaag agcacagctt acctccagat 30540

gaacagcctg cgcgctgagg acactgccgt ctattactgt gcaaagtacc cgcactatta 30600

tgggagcagc cactggtatt tcgacgtctg gggacaagga accctggtca ccgtctcctc 30660

gggaggtggt ggaagtgggg gcggcggtag cggaggggt ggtagcgata tacaaatgac 30720

ccagtccccg tctagcctgt ccgcctctgt gggcgatagg gtcaccatca cctgcagcgc 30780

aagtcaggat attagcaact atttaaactg gtatcaacag aaaccaggaa aagctccgaa 30840

agtcctgatt tacttcacct cctctctcca ctctggagtc ccttctcgct tctctggatc 30900

cggaagtggg acggatttca ctctgaccat cagcagtctg cagccagaag acttcgcaac 30960

ttattactgt caacagtata gcaccgtgcc gtggacgttt ggacagggta ccaaagtgga 31020

aataaaacga ggtaagccta tccctaaccc tctcctcggt ctcgattcta cgtaagctag 31080

cttgactgac tgagatacag cgtaccttca gctcacagac atgataagat acattgatga 31140

gtttggacaa accacaacta gaatgcagtg aaaaaaatgc tttatttgtg aaatttgtga 31200

tgctattgct ttatttgtaa ccattataag ctgcaataaa caagttaaca acaacaattg 31260

cattcatttt atgtttcagg ttcaggggga ggtgtgggag gtttttttaaa gcaagtaaaa 31320

cctctacaaa tgtggtagtc gtcagctatc ctgcaggaac ttgtttattt gaaaatcaat 31380

tcacaaaatc cgagtagtta ttttgcctcc cccttcccat ttaacagaat acaccaatct 31440

ctccccacgc acagctttaa acatttggat accattagat atagacatgg ttttagattc 31500

cacattccaa acagtttcag agcgagccaa tctggggtca gtgatagata aaaatccatc 31560

gggatagtct tttaaagcgc tttcacagtc caactgctgc ggatgcgact ccggagtctg 31620

gatcacggtc atctggaaga agaacgatgg gaatcataat ccgaaaacgg tatcggacga 31680

ttgtgtctca tcaaacccac aagcagccgc tgtctgcgtc gctccgtgcg actgctgttt 31740

atgggatcag ggtccacagt gtcctgaagc atgattttaa tagcccttaa catcaacttt 31800

ctggtgcgat gcgcgcagca acgcattctg atttcactca aatctttgca gtaggtacaa 31860

cacattatta caatattgtt taataaacca taattaaaag cgctccagcc aaaactcata 31920

tctgatataa tcgcccctgc atgaccatca taccaaagtt taatataaat taaatgacgt 31980

tccctcaaaa acacactacc cacatacatg atctcttttg gcatgtgcat attaacaatc 32040

tgtctgtacc atggacaacg ttggttaatc atgcaaccca atataacctt ccggaaccac 32100

actgccaaca ccgctccccc agccatgcat tgaagtgaac cctgctgatt acaatgacaa 32160

tgaagaaccc aattctctcg accgtgaatc acttgagaat gaaaaatatc tatagtggca 32220

caacatagac ataaatgcat gcatcttctc ataattttta actcctcagg atttagaaac 32280

atatcccagg gaataggaag ctcttgcaga acagtaaagc tggcagaaca aggaagacca 32340

cgaacacaac ttacactatg catagtcata gtatcacaat ctggcaacag cgggtggtct 32400

tcagtcatag aagctcgggt ttcattttcc tcacaacgtg gtaactgggc tctggtgtaa 32460

gggtgatgtc tggcgcatga tgtcgagcgt gcgcgcaacc ttgtcataat ggagttgctt 32520

cctgacattc tcgtattttg tatagcaaaa cgcggccctg gcagaacaca ctcttcttcg 32580

ccttctatcc tgccgcttag cgtgttccgt gtgatagttc aagtacaacc acactcttaa 32640

gttggtcaaa agaatgctgg cttcagttgt aatcaaaact ccatcgcatc taatcgttct 32700

gaggaaatca tccaagcaat gcaactggat tgtgtttcaa gcaggagagg agagggaaga 32760

gacggaagaa ccatgttaat ttttattcca aacgatctcg cagtacttca aattgtagat 32820

cgcgcagatg gcatctctcg cccccactgt gttggtgaaa aagcacagct agatcaaaag 32880

aaatgcgatt ttcaaggtgc tcaacggtgg cttccagcaa agcctccacg cgcacatcca 32940

agaacaaaag aataccaaaa gaaggagcat tttctaactc ctcaatcatc atattacatt 33000

cctgcaccat tcccagataa ttttcagctt tccagccttg aattattcgt gtcagttctt 33060

gtggtaaatc caatccacac attacaaaca ggtcccggag ggcgccctcc accaccattc 33120

ttaaacacac cctcataatg acaaaatatc ttgctcctgt gtcacctgta gcgaattgag 33180

aatggcaaca tcaattgaca tgcccttggc tctaagttct tctttaagtt ctagttgtaa 33240

aaactctctc atattatcac caaactgctt agccagaagc cccccgggaa caagagcagg 33300

ggacgctaca gtgcagtaca agcgcagacc tccccaattg gctccagcaa aaacaagatt 33360

ggaataagca tattgggaac cgccagtaat atcatcgaag ttgctggaaa tataatcagg 33420

cagagtttct tgtaaaaatt gaataaaaga aaaatttgcc aaaaaaacat tcaaaacctc 33480

tgggatgcaa atgcaatagg ttaccgcgct gcgctccaac attgttagtt ttgaattagt 33540

ctgcaaaaat aaaaaaaaaa acaagcgtca tatcatagta gcctgacgaa cagatggata 33600

aatcagtctt tccatcacaa gacaagccac agggtctcca gctcgaccct cgtaaaacct 33660

gtcatcatga ttaaacaaca gcaccgaaag ttcctcgcgg tgaccagcat gaataattct 33720

tgatgaagca tacaatccag acatgttagc atcagttaac gagaaaaaac agccaacata 33780

gcctttgggt ataattatgc ttaatcgtaa gtatagcaaa gccacccctc gcggatacaa 33840

agtaaaaggc acaggagaat aaaaaatata attatttctc tgctgctgtt caggcaacgt 33900

cgcccccggt ccctctaaat acacatacaa agcctcatca gccatggctt accagacaaa 33960

gtacagcggg cacacaaagc acaagctcta aagtgactct ccaacctctc cacaatatat 34020

atatacacaa gccctaaact gacgtaatgg gagtaaagtg taaaaaatcc cgccaaaccc 34080

aacacacacc ccgaaactgc gtcaccaggg aaaagtacag tttcacttcc gcaatcccaa 34140

caggcgtaac ttcctctttc tcacggtacg tgatatccca ctaacttgca acgtcatttt 34200

cccacggtcg caccgcccct tttagccgtt aaccccacag ccaatcacca cacgatccac 34260

acttttaaa atcacctcat ttacatattg gcaccattcc atctataagg tatattatat 34320

agataga 34327

<210> 40
<211> 34558
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-280 virus genome sequence consisting of a transgene cassette encoding the sodium iodide symporter (NIS) inserted into the region BY

<400> 40
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggag gccgtggaga ccggggaacg 29400

gcccaccttc ggagcctggg actacggggt ctttgccctc atgctcctgg tgtccactgg 29460

catcgggctg tgggtcgggc tggctcgggg cgggcagcgc agcgctgagg acttcttcac 29520

cgggggccgg cgcctggcgg ccctgcccgt gggcctgtcg ctgtctgcca gcttcatgtc 29580

ggccgtgcag gtgctgggcg tgccgtcgga ggcctatcgc tatggcctca agttcctctg 29640

gatgtgcctg ggccagcttc tgaactcggt cctcaccgcc ctgctcttca tgcccgtctt 29700

ctaccgcctg ggcctcacca gcacctacga gtacctggag atgcgcttca gccgcgcagt 29760

gcggctctgc gggactttgc agtacattgt agccacgatg ctgtacaccg gcatcgtaat 29820

ctacgcaccg gccctcatcc tgaaccaagt gaccgggctg gacatctggg cgtcgctcct 29880

gtccaccgga attatctgca ccttctacac ggctgtgggc ggcatgaagg ctgtggtctg 29940

gactgatgtg ttccaggtcg tggtgatgct aagtggcttc tgggttgtcc tggcacgcgg 30000

tgtcatgctt gtgggcgggc cccgccaggt gctcacgctg gcccagaacc actcccggat 30060

caacctcatg gactttaacc ctgacccgag gagccgctat acattctgga cttttgtggt 30120

gggtggcacg ttggtgtggc tctccatgta tggcgtgaac caggcgcagg tgcagcgcta 30180

cgtggcttgc cgcacagaga agcaggccaa gctggccctg ctcatcaacc aggtcggcct 30240

gttcctgatc gtgtccagcg ctgcctgctg tggcatcgtc atgtttgtgt tctacactga 30300

ctgcgaccct ctcctcctgg ggcgcatctc tgccccagac cagtacatgc ctctgctggt 30360

gctggacatc ttcgaagatc tgcctggagt ccccgggctt ttcctggcct gtgcttacag 30420

tggcaccctc agcacagcat ccaccagcat caatgctatg gctgcagtca ctgtagaaga 30480

cctcatcaaa cctcggctgc ggagcctggc acccaggaaa ctcgtgatta tctccaaggg 30540

gctctcactc atctacggat cggcctgtct caccgtggca gccctgtcct cactgctcgg 30600

aggaggtgtc cttcagggct ccttcaccgt catgggagtc atcagcggcc ccctgctggg 30660

agccttcatc ttgggaatgt tcctgccggc ctgcaacaca ccgggcgtcc tcgcgggact 30720

aggcgcgggc ttggcgctgt cgctgtgggt ggccttgggc gccacgctgt acccacccag 30780

cgagcagacc atgagggtcc tgccatcgtc ggctgcccgc tgcgtggctc tctcagtcaa 30840

cgcctctggc ctcctggacc cggctctcct ccctgctaac gactccagca gggcccccag 30900

ctcaggaatg gacgccagcc gacccgcctt agctgacagc ttctatgcca tctcctatct 30960

ctattacggt gccctgggca cgctgaccac tgtgctgtgc ggagccctca tcagctgcct 31020

gacaggcccc accaagcgca gcaccctggc cccgggattg ttgtggtggg acctcgcacg 31080

gcagacagca tcagtggccc ccaaggaaga agtggccatc ctggatgaca acttggtcaa 31140

gggtcctgaa gaactcccca ctggaaacaa gaagcccccc ggcttcctgc ccaccaatga 31200

ggatcgtctg tttttcttgg ggcagaagga gctggagggg gctggctctt ggacccccctg 31260

tgttggacat gatggtggtc gagaccagca ggagacaaac ctctgagcta gcttgactga 31320

ctgagataca gcgtaccttc agctcacaga catgataaga tacattgatg agtttggaca 31380

aaccacaact agaatgcagt gaaaaaaatg ctttatttgt gaaatttgtg atgctattgc 31440

tttatttgta accattataa gctgcaataa acaagttaac aacaacaatt gcattcattt 31500

tatgtttcag gttcaggggg aggtgtggga ggtttttaa agcaagtaaa acctctacaa 31560

atgtggtagt cgtcagctat cctgcaggaa cttgtttatt tgaaaatcaa ttcacaaaat 31620

ccgagtagtt attttgcctc ccccttccca tttaacagaa tacaccaatc tctccccacg 31680

cacagcttta aacatttgga taccattaga tatagacatg gttttagatt ccacattcca 31740

aacagtttca gagcgagcca atctggggtc agtgatagat aaaaatccat cgggatagtc 31800

ttttaaagcg ctttcacagt ccaactgctg cggatgcgac tccggagtct ggatcacggt 31860

catctggaag aagaacgatg ggaatcataa tccgaaaacg gtatcggacg attgtgtctc 31920

atcaaaccca caagcagccg ctgtctgcgt cgctccgtgc gactgctgtt tatgggatca 31980

gggtccacag tgtcctgaag catgatttta atagccctta acatcaactt tctggtgcga 32040

tgcgcgcagc aacgcattct gatttcactc aaatctttgc agtaggtaca acacattatt 32100

acaatattgt ttaataaacc ataattaaaa gcgctccagc caaaactcat atctgatata 32160

atcgcccctg catgaccatc ataccaaagt ttaatataaa ttaaatgacg ttccctcaaa 32220

aacacactac ccacatacat gatctctttt ggcatgtgca tattaacaat ctgtctgtac 32280

catggacaac gttggttaat catgcaaccc aatataacct tccggaacca cactgccaac 32340

accgctcccc cagccatgca ttgaagtgaa ccctgctgat tacaatgaca atgaagaacc 32400

caattctctc gaccgtgaat cacttgagaa tgaaaaatat ctatagtggc acaacataga 32460

cataaatgca tgcatcttct cataattttt aactcctcag gatttagaaa catatcccag 32520

ggaataggaa gctcttgcag aacagtaaag ctggcagaac aaggaagacc acgaacacaa 32580

cttacactat gcatagtcat agtatcacaa tctggcaaca gcgggtggtc ttcagtcata 32640

gaagctcggg tttcattttc ctcacaacgt ggtaactggg ctctggtgta agggtgatgt 32700

ctggcgcatg atgtcgagcg tgcgcgcaac cttgtcataa tggagttgct tcctgacatt 32760

ctcgtatttt gtatagcaaa acgcggccct ggcagaacac actcttcttc gccttctatc 32820

ctgccgctta gcgtgttccg tgtgatagtt caagtacaac cacactctta agttggtcaa 32880

aagaatgctg gcttcagttg taatcaaaac tccatcgcat ctaatcgttc tgaggaaatc 32940

atccaagcaa tgcaactgga ttgtgtttca agcaggagag gagagggaag agacggaaga 33000

accatgttaa tttttattcc aaacgatctc gcagtacttc aaattgtaga tcgcgcagat 33060

ggcatctctc gcccccactg tgttggtgaa aaagcacagc tagatcaaaa gaaatgcgat 33120

tttcaaggtg ctcaacggtg gcttccagca aagcctccac gcgcacatcc aagaacaaaa 33180

gaataccaaa agaaggagca ttttctaact cctcaatcat catattacat tcctgcacca 33240

ttcccagata attttcagct ttccagcctt gaattattcg tgtcagttct tgtggtaaat 33300

ccaatccaca cattacaaac aggtcccgga gggcgccctc caccaccatt cttaaacaca 33360

ccctcataat gacaaaatat cttgctcctg tgtcacctgt agcgaattga gaatggcaac 33420

atcaattgac atgcccttgg ctctaagttc ttctttaagt tctagttgta aaaactctct 33480

catattatca ccaaactgct tagccagaag ccccccggga acaagagcag gggacgctac 33540

agtgcagtac aagcgcagac ctccccaatt ggctccagca aaaacaagat tggaataagc 33600

atattgggaa ccgccagtaa tatcatcgaa gttgctggaa atataatcag gcagagtttc 33660

ttgtaaaaat tgaataaaag aaaaatttgc caaaaaaaca ttcaaaacct ctgggatgca 33720

aatgcaatag gttaccgcgc tgcgctccaa cattgttagt tttgaattag tctgcaaaaa 33780

taaaaaaaaa aacaagcgtc atatcatagt agcctgacga acagatggat aaatcagtct 33840

ttccatcaca agacaagcca cagggtctcc agctcgaccc tcgtaaaacc tgtcatcatg 33900

attaaacaac agcaccgaaa gttcctcgcg gtgaccagca tgaataattc ttgatgaagc 33960

atacaatcca gacatgttag catcagttaa cgagaaaaaa cagccaacat agcctttggg 34020

tataattatg cttaatcgta agtatagcaa agccacccct cgcggataca aagtaaaagg 34080

cacaggagaa taaaaaatat aattatttct ctgctgctgt tcaggcaacg tcgcccccgg 34140

tccctctaaa tacacataca aagcctcatc agccatggct taccagacaa agtacagcgg 34200

gcacacaaag cacaagctct aaagtgactc tccaacctct ccacaatata tatatacaca 34260

agccctaaac tgacgtaatg ggagtaaagt gtaaaaaatc ccgccaaacc caacacacac 34320

cccgaaactg cgtcaccagg gaaaagtaca gtttcacttc cgcaatccca acaggcgtaa 34380

cttcctcttt ctcacggtac gtgatatccc actaacttgc aacgtcattt tcccacggtc 34440

gcaccgcccc ttttagccgt taaccccaca gccaatcacc acacgatcca cacttttaa 34500

aatcacctca tttacatatt ggcaccattc catctataag gtatattata tagataga 34558

<210> 41
<211> 33464
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-281 virus genome sequence comprising the EnAd genome with a transgene cassette encoding an anti-VEGF ScFv inserted into the region Bx and a second transgene cassette encoding an anti-PD-L1 ScFv inserted into the region BY

<400> 41
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta ctgcggccgc 28200

tgctaatcct ttctctcttc aggccaccat gggatggagc tgtatcatcc tcttcttggt 28260

agcaacagct acaggtgtcc actccgaggt tcagctggtg gagtctggcg gtggcctggt 28320

gcagccaggg ggctcactcc gtttgtcctg tgcagcttct ggctatacct tcaccaacta 28380

tggtatgaac tgggtccgtc aggccccggg taagggcctg gaatgggttg gatggattaa 28440

cacctatacc ggtgaaccga cctatgctgc ggatttcaaa cgtcgtttta ctttttctct 28500

ggacacctcc aagagcacag cttacctgca gatgaacagc ctgcgcgctg aggacactgc 28560

cgtctattac tgtgcaaagt acccgcacta ttatgggagc agccactggt atttcgacgt 28620

ctggggtcaa ggaaccctgg tcaccgtctc ctcgggtggc ggtggctcgg gcggtggtgg 28680

atctggtggc ggcggatctg atatccagat gacccagtcc ccgagctccc tgtccgcctc 28740

tgtgggcgat agggtcacca tcacctgcag cgcaagtcag gatattagca actatttaaa 28800

ctggtatcaa cagaaaccag gaaaagctcc gaaagtcctg atttacttca cctcctctct 28860

ccactctgga gtcccttctc gcttctctgg atccggttct gggacggatt tcactctgac 28920

catcagcagt ctgcagccag aagacttcgc aacttattac tgtcaacagt atagcaccgt 28980

gccgtggacg tttggacagg gtaccaaggt ggagatcaaa cgacatcatc accaccacca 29040

ttaagctagc ttgactgact gagatacagc gtaccttcag ctcacagaca tgataagata 29100

cattgatgag tttggacaaa ccacaactag aatgcagtga aaaaaatgct ttatttgtga 29160

aatttgtgat gctattgctt tatttgtaac cattataagc tgcaataaac aagttaacaa 29220

caacaattgc attcatttta tgtttcaggt tcaggggggag gtgtgggagg ttttttaaag 29280

caagtaaaac ctctacaaat gtgggccggc ctgaaatcag caataaggtc tctgttgaaa 29340

ttttctccca gcagcacctc acttccctct tcccaactct ggtattctaa accccgttca 29400

gcggcatact ttctccatac tttaaagggg atgtcaaatt ttagctcctc tcctgtaccc 29460

acaatcttca tgtctttctt cccagatgac caagagagtc cggctcagtg actccttcaa 29520

ccctgtctac ccctatgaag atgaaagcac ctcccaacac ccctttataa acccagggtt 29580

tatttcccca aatggcttca cacaaagccc aaacggagtt cttactttaa aatgtttaac 29640

cccactaaca accacaggcg gatctctaca gctaaaagtg ggagggggac ttacagtgga 29700

tgacaccaac ggtttttga aagaaaacat aagtgccacc acaccactcg ttaagactgg 29760

tcactctata ggtttaccac taggagccgg attgggaacg aatgaaaata aactttgtat 29820

caaattagga caaggactta cattcaattc aaacaacatt tgcattgatg acaatattaa 29880

caccttatgg acaggagtca accccaccga agccaactgt caaatcatga actccagtga 29940

atctaatgat tgcaaattaa ttctaacact agttaaaact ggagcactag tcactgcatt 30000

tgtttatgtt ataggagtat ctaacaattt taatatgcta actacacaca gaaatataaa 30060

ttttactgca gagctgtttt tcgattctac tggtaattta ctaactagac tctcatccct 30120

caaaactcca cttaatcata aatcaggaca aaacatggct actggtgcca ttactaatgc 30180

taaaggtttc atgcccagca cgactgccta tcctttcaat gataattcta gagaaaaaga 30240

aaactacatt tacggaactt gttactacac agctagtgat cgcactgctt ttcccattga 30300

catatctgtc atgcttaacc gaagagcaat aaatgacgag acatcatatt gtattcgtat 30360

aacttggtcc tggaacacag gagatgcccc agaggtgcaa acctctgcta caaccctagt 30420

cacctcccca tttacctttt actacatcag agaagacgac tgacaaataa agtttgcgat 30480

cgctaccctg caggaacttg tttatttgaa aatcaattca caaaatccga gtagttattt 30540

tgcctccccc ttcccattta acagaataca ccaatctctc cccacgcaca gctttaaaca 30600

tttggatacc attagatata gacatggttt tagattccac attccaaaca gtttcagagc 30660

gagccaatct ggggtcagtg atagataaaa atccatcggg atagtctttt aaagcgcttt 30720

cacagtccaa ctgctgcgga tgcgactccg gagtctggat cacggtcatc tggaagaaga 30780

acgatgggaa tcataatccg aaaacggtat cggacgattg tgtctcatca aacccacaag 30840

cagccgctgt ctgcgtcgct ccgtgcgact gctgtttatg ggatcagggt ccacagtgtc 30900

ctgaagcatg attttaatag cccttaacat caactttctg gtgcgatgcg cgcagcaacg 30960

cattctgatt tcactcaaat ctttgcagta ggtacaacac attattacaa tattgtttaa 31020

taaaccataa ttaaaagcgc tccagccaaa actcatatct gatataatcg cccctgcatg 31080

accatcatac caaagtttaa tataaattaa atgacgttcc ctcaaaaaca cactacccac 31140

atacatgatc tcttttggca tgtgcatatt aacaatctgt ctgtaccatg gacaacgttg 31200

gttaatcatg caacccaata taaccttccg gaaccacact gccaacaccg ctcccccagc 31260

catgcattga agtgaaccct gctgattaca atgacaatga agaacccaat tctctcgacc 31320

gtgaatcact tgagaatgaa aaatatctat agtggcacaa catagacata aatgcatgca 31380

tcttctcata atttttaact cctcaggatt tagaaacata tcccagggaa taggaagctc 31440

ttgcagaaca gtaaagctgg cagaacaagg aagaccacga acacaactta cactatgcat 31500

agtcatagta tcacaatctg gcaacagcgg gtggtcttca gtcatagaag ctcgggtttc 31560

attttcctca caacgtggta actgggctct ggtgtaaggg tgatgtctgg cgcatgatgt 31620

cgagcgtgcg cgcaaccttg tcataatgga gttgcttcct gacattctcg tattttgtat 31680

agcaaaacgc ggccctggca gaacacactc ttcttcgcct tctatcctgc cgcttagcgt 31740

gttccgtgtg atagttcaag tacaaccaca ctcttaagtt ggtcaaaaga atgctggctt 31800

cagttgtaat caaaactcca tcgcatctaa tcgttctgag gaaatcatcc aagcaatgca 31860

actggattgt gtttcaagca ggagaggaga gggaagagac ggaagaacca tgttaatttt 31920

tattccaaac gatctcgcag tacttcaaat tgtagatcgc gcagatggca tctctcgccc 31980

ccactgtgtt ggtgaaaaag cacagctaga tcaaaagaaa tgcgattttc aaggtgctca 32040

acggtggctt ccagcaaagc ctccacgcgc acatccaaga acaaaagaat accaaaagaa 32100

ggagcatttt ctaactcctc aatcatcata ttacattcct gcaccattcc cagataattt 32160

tcagctttcc agccttgaat tattcgtgtc agttcttgtg gtaaatccaa tccacacatt 32220

acaaacaggt cccggagggc gccctccacc accattctta aacacaccct cataatgaca 32280

aaatatcttg ctcctgtgtc acctgtagcg aattgagaat ggcaacatca attgacatgc 32340

ccttggctct aagttcttct ttaagttcta gttgtaaaaa ctctctcata ttatcaccaa 32400

actgcttagc cagaagcccc ccgggaacaa gagcagggga cgctacagtg cagtacaagc 32460

gcagacctcc ccaattggct ccagcaaaaa caagattgga ataagcatat tgggaaccgc 32520

cagtaatatc atcgaagttg ctggaaatat aatcaggcag agtttcttgt aaaaattgaa 32580

taaaagaaaa atttgccaaa aaaacattca aaacctctgg gatgcaaatg caataggtta 32640

ccgcgctgcg ctccaacatt gttagttttg aattagtctg caaaaataaa aaaaaaaaca 32700

agcgtcatat catagtagcc tgacgaacag atggataaat cagtctttcc atcacaagac 32760

aagccacagg gtctccagct cgaccctcgt aaaacctgtc atcatgatta aacaacagca 32820

ccgaaagttc ctcgcggtga ccagcatgaa taattcttga tgaagcatac aatccagaca 32880

tgttagcatc agttaacgag aaaaaacagc caacatagcc tttgggtata attatgctta 32940

atcgtaagta tagcaaagcc acccctcgcg gatacaaagt aaaaggcaca ggagaataaa 33000

aaatataatt atttctctgc tgctgttcag gcaacgtcgc ccccggtccc tctaaataca 33060

catacaaagc ctcatcagcc atggcttacc agacaaagta cagcgggcac acaaagcaca 33120

agctctaaag tgactctcca acctctccac aatatatata tacacaagcc ctaaactgac 33180

gtaatgggag taaagtgtaa aaaatcccgc caaacccaac acacaccccg aaactgcgtc 33240

accagggaaa agtacagttt cacttccgca atcccaacag gcgtaacttc ctctttctca 33300

cggtacgtga tatcccacta acttgcaacg tcattttccc acggtcgcac cgccccttt 33360

agccgttaac cccacagcca atcaccacac gatccacact ttttaaaatc acctcattta 33420

catattggca ccattccatc tataaggtat attatataga taga 33464

<210> 42
<211> 33493
<212> DNA

<213> Artificial Sequence

<220>
<223> NG-330 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes the T lymphocyte activation antigen, CD80, inserted in the region BY. The transgene cassette contains a 5' SSA, human CD80 cDNA sequence and a 3' poly(A)

<400> 42
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

aggggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac caccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc cacacacgga ggcagggaac 29400

atcaccatcc aagtgtccat acctcaattt ctttcagctc ttggtgctgg ctggtctttc 29460

tcacttctgt tcaggtgtta tccacgtgac caaggaagtg aaagaagtgg caacgctgtc 29520

ctgtggtcac aatgtttctg ttgaagagct ggcacaaact cgcatctact ggcaaaagga 29580

gaagaaaatg gtgctgacta tgatgtctgg ggacatgaat atatggcccg agtacaagaa 29640

ccggaccatc tttgatatca ctaataacct ctccattgtg atcctggctc tgcgcccatc 29700

tgacgagggc acatacgagt gtgttgttct gaagtatgaa aaagacgctt tcaagcggga 29760

acacctggct gaagtgacgt tatcagtcaa agctgacttc cctacaccta gtatatctga 29820

ctttgaaatt ccaacttcta atattagaag gataatttgc tcaacctctg gaggttttcc 29880

agagcctcac ctctcctggt tggaaaatgg agaagaatta aatgccatca acacaacagt 29940

ttcccaagat cctgaaactg agctctatgc tgttagcagc aaactggatt tcaatatgac 30000

aaccaaccac agcttcatgt gtctcatcaa gtatggacat ttaagagtga atcagacctt 30060

caactggaat acaaccaagc aagagcattt tcctgataac ctgctcccat cctgggccat 30120

taccttaatc tcagtaaatg gaatttttgt gatatgctgc ctgacctact gctttgcccc 30180

aagatgcaga gagagaagga ggaatgagag attgagaagg gaaagtgtac gccctgtata 30240

agctagcttg actgactgag atacagcgta ccttcagctc acagacatga taagatacat 30300

tgatgagttt ggacaaacca caactagaat gcagtgaaaa aaatgcttta tttgtgaaat 30360

ttgtgatgct attgctttat ttgtaaccat tataagctgc aataaacaag ttaacaacaa 30420

caattgcatt cattttatgt ttcaggttca gggggaggtg tgggaggttt tttaaagcaa 30480

gtaaaacctc tacaaatgtg gtagtcgtca gctatcctgc aggaacttgt ttatttgaaa 30540

atcaattcac aaaatccgag tagttatttt gcctcccccc tcccatttaa cagaatacac 30600

caatctctcc ccacgcacag ctttaaacat ttggatacca ttagatatag acatggtttt 30660

agattccaca ttccaaacag tttcagagcg agccaatctg gggtcagtga tagataaaaa 30720

tccatcggga tagtctttta aagcgctttc acagtccaac tgctgcggat gcgactccgg 30780

agtctggatc acggtcatct ggaagaagaa cgatgggaat cataatccga aaacggtatc 30840

ggacgattgt gtctcatcaa acccacaagc agccgctgtc tgcgtcgctc cgtgcgactg 30900

ctgtttatgg gatcagggtc cacagtgtcc tgaagcatga ttttaatagc ccttaacatc 30960

aactttctgg tgcgatgcgc gcagcaacgc attctgattt cactcaaatc tttgcagtag 31020

gtacaacaca ttattacaat attgtttaat aaaccataat taaaagcgct ccagccaaaa 31080

ctcatatctg atataatcgc ccctgcatga ccatcatacc aaagtttaat ataaattaaa 31140

tgacgttccc tcaaaaacac actacccaca tacatgatct cttttggcat gtgcatatta 31200

acaatctgtc tgtaccatgg acaacgttgg ttaatcatgc aacccaatat aaccttccgg 31260

aaccacactg ccaacaccgc tcccccagcc atgcattgaa gtgaaccctg ctgattacaa 31320

tgacaatgaa gaacccaatt ctctcgaccg tgaatcactt gagaatgaaa aatatctata 31380

gtggcacaac atagacataa atgcatgcat cttctcataa tttttaactc ctcaggattt 31440

agaaacatat cccagggaat aggaagctct tgcagaacag taaagctggc agaacaagga 31500

agaccacgaa cacaacttac actatgcata gtcatagtat cacaatctgg caacagcggg 31560

tggtcttcag tcatagaagc tcgggtttca ttttcctcac aacgtggtaa ctgggctctg 31620

gtgtaagggt gatgtctggc gcatgatgtc gagcgtgcgc gcaaccttgt cataatggag 31680

ttgcttcctg acattctcgt attttgtata gcaaaacgcg gccctggcag aacacactct 31740

tcttcgcctt ctatcctgcc gcttagcgtg ttccgtgtga tagttcaagt acaaccacac 31800

tcttaagttg gtcaaaagaa tgctggcttc agttgtaatc aaaactccat cgcatctaat 31860

cgttctgagg aaatcatcca agcaatgcaa ctggattgtg tttcaagcag gagaggagag 31920

ggaagagacg gaagaaccat gttaattttt attccaaacg atctcgcagt acttcaaatt 31980

gtagatcgcg cagatggcat ctctcgcccc cactgtgttg gtgaaaaagc acagctagat 32040

caaaagaaat gcgattttca aggtgctcaa cggtggcttc cagcaaagcc tccacgcgca 32100

catccaagaa caaaagaata ccaaaagaag gagcattttc taactcctca atcatcatat 32160

tacattcctg caccattccc agataatttt cagctttcca gccttgaatt attcgtgtca 32220

gttcttgtgg taaatccaat ccacacatta caaacaggtc ccggagggcg ccctccacca 32280

ccattcttaa acacaccctc ataatgacaa aatatcttgc tcctgtgtca cctgtagcga 32340

attgagaatg gcaacatcaa ttgacatgcc cttggctcta agttcttctt taagttctag 32400

ttgtaaaaac tctctcatat tatcaccaaa ctgcttagcc agaagccccc cgggaacaag 32460

agcaggggac gctacagtgc agtacaagcg cagacctccc caattggctc cagcaaaaac 32520

aagattggaa taagcatatt gggaaccgcc agtaatatca tcgaagttgc tggaaatata 32580

atcaggcaga gtttcttgta aaaattgaat aaaagaaaaa tttgccaaaa aaacattcaa 32640

aacctctggg atgcaaatgc aataggttac cgcgctgcgc tccaacattg ttagttttga 32700

attagtctgc aaaaataaaa aaaaaaacaa gcgtcatatc atagtagcct gacgaacaga 32760

tggataaatc agtctttcca tcacaagaca agccacaggg tctccagctc gaccctcgta 32820

aaacctgtca tcatgattaa acaacagcac cgaaagttcc tcgcggtgac cagcatgaat 32880

aattcttgat gaagcataca atccagacat gttagcatca gttaacgaga aaaaacagcc 32940

aacatagcct ttgggtataa ttatgcttaa tcgtaagtat agcaaagcca cccctcgcgg 33000

atacaaagta aaaggcacag gagaataaaa aatataatta tttctctgct gctgttcagg 33060

caacgtcgcc cccggtccct ctaaatacac atacaaagcc tcatcagcca tggcttacca 33120

gacaaagtac agcgggcaca caaagcacaa gctctaaagt gactctccaa cctctccaca 33180

atatatatat acacaagccc taaactgacg taatgggagt aaagtgtaaa aaatcccgcc 33240

aaacccaaca cacaccccga aactgcgtca ccagggaaaa gtacagtttc acttccgcaa 33300

tcccaacagg cgtaacttcc tctttctcac ggtacgtgat atcccactaa cttgcaacgt 33360

cattttccca cggtcgcacc gccccttta gccgttaacc ccacagccaa tcaccacacg 33420

atccacactt tttaaaatca cctcatttac atattggcac cattccatct ataaggtata 33480

ttatatagat aga 33493

<210> 43
<211> 34119
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-343 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes IFNa, and CD80, inserted in the region BY. The transgene cassette contains a 5' SSA, IFNa cDNA sequence, P2A peptide, CD80 cDNA sequence and a 3' poly(A)

<400> 43
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatggcct tgacctttgc tttactggtg 29400

gccctcctgg tgctcagctg caagtcaagc tgctctgtgg gctgtgatct gcctcaaacc 29460

cacagcctgg gtagcaggag gaccttgatg ctcctggcac agatgaggag aatctctctt 29520

ttctcctgct tgaaggacag acatgacttt ggatttcccc aggaggagtt tggcaaccag 29580

ttccaaaagg ctgaaaccat ccctgtcctc catgagatga tccagcagat cttcaatctc 29640

ttcagcacaa aggactcatc tgctgcttgg gatgagaccc tcctagacaa attctacact 29700

gaactctacc agcagctgaa tgacctggaa gcctgtgtga tacaggggggt gggggtgaca 29760

gagactcccc tgatgaagga ggactccatt ctggctgtga ggaaatactt ccaaagaatc 29820

actctctatc tgaaagagaa gaaatacagc ccttgtgcct gggaggttgt cagagcagaa 29880

atcatgagat ctttttcttt gtcaacaaac ttgcaagaaa gtttaagaag taaggaagga 29940

agcggagcta ctaacttcag cctgctgaag caggctggag acgtggagga gaaccctgga 30000

cctggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caatttcttt 30060

cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 30120

gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 30180

caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 30240

atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 30300

attgtgatcc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 30360

tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 30420

gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 30480

atttgctcaa cctctggagg ttttccagag cctcacctct cctggttgga aaatggagaa 30540

gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 30600

agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 30660

ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 30720

gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 30780

tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 30840

agaagggaaa gtgtacgccc tgtataagct agcttgactg actgagatac agcgtacctt 30900

cagctcacag acatgataag atacattgat gagtttggac aaaccacaac tagaatgcag 30960

tgaaaaaaat gctttatttg tgaaatttgt gatgctattg ctttatttgt aaccattata 31020

agctgcaata aacaagttaa caacaacaat tgcattcatt ttatgtttca ggttcagggg 31080

gaggtgtggg aggtttttta aagcaagtaa aacctctaca aatgtggtag tcgtcagcta 31140

tcctgcagga acttgtttat ttgaaaatca attcacaaaa tccgagtagt tattttgcct 31200

ccccttccc atttaacaga atacaccaat ctctccccac gcacagcttt aaacatttgg 31260

ataccattag atatagacat ggttttagat tccacattcc aaacagtttc agagcgagcc 31320

aatctggggt cagtgataga taaaaatcca tcgggatagt cttttaaagc gctttcacag 31380

tccaactgct gcggatgcga ctccggagtc tggatcacgg tcatctggaa gaagaacgat 31440

gggaatcata atccgaaaac ggtatcggac gattgtgtct catcaaaccc acaagcagcc 31500

gctgtctgcg tcgctccgtg cgactgctgt ttatgggatc agggtccaca gtgtcctgaa 31560

gcatgatttt aatagccctt aacatcaact ttctggtgcg atgcgcgcag caacgcattc 31620

tgatttcact caaatctttg cagtaggtac aacacattat tacaatattg tttaataaac 31680

cataattaaa agcgctccag ccaaaactca tatctgatat aatcgcccct gcatgaccat 31740

cataccaaag tttaatataa attaaatgac gttccctcaa aaacacacta cccacataca 31800

tgatctcttt tggcatgtgc atattaacaa tctgtctgta ccatggacaa cgttggttaa 31860

tcatgcaacc caatataacc ttccggaacc acactgccaa caccgctccc ccagccatgc 31920

attgaagtga accctgctga ttacaatgac aatgaagaac ccaattctct cgaccgtgaa 31980

tcacttgaga atgaaaaata tctatagtgg cacaacatag acataaatgc atgcatcttc 32040

tcataatttt taactcctca ggatttagaa acatatccca gggaatagga agctcttgca 32100

gaacagtaaa gctggcagaa caaggaagac cacgaacaca acttacacta tgcatagtca 32160

tagtatcaca atctggcaac agcgggtggt cttcagtcat agaagctcgg gtttcatttt 32220

cctcacaacg tggtaactgg gctctggtgt aagggtgatg tctggcgcat gatgtcgagc 32280

gtgcgcgcaa ccttgtcata atggagttgc ttcctgacat tctcgtattt tgtatagcaa 32340

aacgcggccc tggcagaaca cactcttctt cgccttctat cctgccgctt agcgtgttcc 32400

gtgtgatagt tcaagtacaa ccacactctt aagttggtca aaagaatgct ggcttcagtt 32460

gtaatcaaaa ctccatcgca tctaatcgtt ctgaggaaat catccaagca atgcaactgg 32520

attgtgtttc aagcaggaga ggagagggaa gagacggaag aaccatgtta atttttattc 32580

caaacgatct cgcagtactt caaattgtag atcgcgcaga tggcatctct cgcccccact 32640

gtgttggtga aaaagcacag ctagatcaaa agaaatgcga ttttcaaggt gctcaacggt 32700

ggcttccagc aaagcctcca cgcgcacatc caagaacaaa agaataccaa aagaaggagc 32760

attttctaac tcctcaatca tcatattaca ttcctgcacc attcccagat aattttcagc 32820

tttccagcct tgaattattc gtgtcagttc ttgtggtaaa tccaatccac acattacaaa 32880

caggtcccgg agggcgccct ccaccaccat tcttaaacac accctcataa tgacaaaata 32940

tcttgctcct gtgtcacctg tagcgaattg agaatggcaa catcaattga catgcccttg 33000

gctctaagtt cttctttaag ttctagttgt aaaaactctc tcatattatc accaaactgc 33060

ttagccagaa gccccccggg aacaagagca ggggacgcta cagtgcagta caagcgcaga 33120

cctccccaat tggctccagc aaaaacaaga ttggaataag catattggga accgccagta 33180

atatcatcga agttgctgga aatataatca ggcagagttt cttgtaaaaa ttgaataaaa 33240

gaaaaatttg ccaaaaaaac attcaaaacc tctgggatgc aaatgcaata ggttaccgcg 33300

ctgcgctcca acattgttag ttttgaatta gtctgcaaaa ataaaaaaaa aaacaagcgt 33360

catatcatag tagcctgacg aacagatgga taaatcagtc tttccatcac aagacaagcc 33420

acagggtctc cagctcgacc ctcgtaaaac ctgtcatcat gattaaacaa cagcaccgaa 33480

agttcctcgc ggtgaccagc atgaataatt cttgatgaag catacaatcc agacatgtta 33540

gcatcagtta acgagaaaaa acagccaaca tagcctttgg gtataattat gcttaatcgt 33600

aagtatagca aagccacccc tcgcggatac aaagtaaaag gcacaggaga ataaaaaata 33660

taattatttc tctgctgctg ttcaggcaac gtcgcccccg gtccctctaa atacacatac 33720

aaagcctcat cagccatggc ttaccagaca aagtacagcg ggcacacaaa gcacaagctc 33780

taaagtgact ctccaacctc tccacaatat atatatacac aagccctaaa ctgacgtaat 33840

gggagtaaag tgtaaaaaat cccgccaaac ccaacacaca ccccgaaact gcgtcaccag 33900

ggaaaagtac agtttcactt ccgcaatccc aacaggcgta acttcctctt tctcacggta 33960

cgtgatatcc cactaacttg caacgtcatt ttcccacggt cgcaccgccc cttttagccg 34020

ttaaccccac agccaatcac cacacgatcc acacttttta aaatcacctc atttacatat 34080

tggcaccatt ccatctataa ggtatattat atagataga 34119

<210> 44
<211> 35602
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-641 Genome

<400> 44
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

catttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc tggagctgca tcatcttgtt 29400

cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa gccctgactc 29460

gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc agagcctgct 29520

gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg gccagcctcc 29580

caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc gcttcagcgg 29640

aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg aggacgtggc 29700

cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag gcaccaaggt 29760

ggagattaag ggaggggcg gcagcggggg aggcggcagc ggcggcgggg gatcgcaggt 29820

ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca aggtcagctg 29880

caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc aggcgcccgg 29940

ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa attacaatca 30000

gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg cgtacatgga 30060

gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc gccggatcgc 30120

ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc tcgtcacggt 30180

gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg aactggcaag 30240

acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta ctaggtacac 30300

gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat acattaatcc 30360

tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat tgactacaga 30420

caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg actctgcagt 30480

ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg gccaaggcac 30540

cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg gtggcggcgg 30600

atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag gggagaaggt 30660

caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc agcagaagtc 30720

aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg gagtccctgc 30780

tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg gcatggaggc 30840

tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca cgttcggctc 30900

ggggacaaag ttggaaataa accggggaag cggagctact aacttcagcc tgctgaagca 30960

ggctggagac gtggaggaga accctggacc taatcaaact gccattctga tttgctgcct 31020

tatctttctg actctaagtg gcattcaagg agtacctctc tctagaactg tacgctgtac 31080

ctgcatcagc attagtaatc aacctgttaa tccaaggtct ttagaaaaac ttgaaattat 31140

tcctgcaagc caattttgtc cacgtgttga gatcattgct acaatgaaaa agaagggtga 31200

gaagagatgt ctgaatccag aatcgaaggc catcaagaat ttactgaaag cagttagcaa 31260

ggaaaggtct aaaagatctc ctggaagcgg agagggcaga ggaagtctgc taacatgcgg 31320

tgacgtcgag gagaatcctg gacctaagaa aagtggtgtt cttttcctct tgggcatcat 31380

cttgctggtt ctgattggag tgcaaggaac cccagtagtg agaaagggtc gctgttcctg 31440

catcagcacc aaccaaggga ctatccacct acaatccttg aaagacctta aacaatttgc 31500

cccaagccct tcctgcgaga aaattgaaat cattgctaca ctgaagaatg gagttcaaac 31560

atgtctaaac ccagattcag cagatgtgaa ggaactgatt aaaaagtggg agaaacaggt 31620

cagccaaaag aaaaagcaaa agaatgggaa aaaacatcaa aaaaagaaag ttctgaaagt 31680

tcgaaaatct caacgttctc gtcaaaagaa gactacagga agcggacagt gtactaatta 31740

tgctctcttg aaattggctg gagatgttga gagcaaccct ggacctgcct tgacctttgc 31800

tttactggtg gccctcctgg tgctcagctg caagtcaagc tgctctgtgg gctgtgatct 31860

gcctcaaacc cacagcctgg gtagcaggag gaccttgatg ctcctggcac agatgaggag 31920

aatctctctt ttctcctgct tgaaggacag acatgacttt ggatttcccc aggaggagtt 31980

tggcaaccag ttccaaaagg ctgaaaccat ccctgtcctc catgagatga tccagcagat 32040

cttcaatctc ttcagcacaa aggactcatc tgctgcttgg gatgagaccc tcctagacaa 32100

attctacact gaactctacc agcagctgaa tgacctggaa gcctgtgtga tacaggggtt 32160

gggggtgaca gagactcccc tgatgaagga ggactccatt ctggctgtga ggaaatactt 32220

ccaaagaatc actctctatc tgaaagagaa gaaatacagc ccttgtgcct gggaggttgt 32280

cagagcagaa atcatgagat ctttttcttt gtcaacaaac ttgcaagaaa gtttaagaag 32340

taaggaataa gctagcttga ctgactgaga tacagcgtac cttcagctca cagacatgat 32400

aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa aatgctttat 32460

ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca ataaacaagt 32520

taacaacaac aattgcattc attttatgtt tcaggttcag ggggaggtgt gggaggtttt 32580

ttaaagcaag taaaacctct acaaatgtgg tagtcgtcag ctatcctgca ggaacttgtt 32640

tatttgaaaa tcaattcaca aaatccgagt agttattttg cctccccctt cccatttaac 32700

agaatacacc aatctctccc cacgcacagc tttaaacatt tggataccat tagatataga 32760

catggtttta gattccacat tccaaacagt ttcagagcga gccaatctgg ggtcagtgat 32820

agataaaaat ccatcgggat agtcttttaa agcgctttca cagtccaact gctgcggatg 32880

cgactccgga gtctggatca cggtcatctg gaagaagaac gatgggaatc ataatccgaa 32940

aacggtatcg gacgattgtg tctcatcaaa cccacaagca gccgctgtct gcgtcgctcc 33000

gtgcgactgc tgtttatggg atcagggtcc acagtgtcct gaagcatgat tttaatagcc 33060

cttaacatca actttctggt gcgatgcgcg cagcaacgca ttctgatttc actcaaatct 33120

ttgcagtagg tacaacacat tattacaata ttgtttaata aaccataatt aaaagcgctc 33180

cagccaaaac tcatatctga tataatcgcc cctgcatgac catcatacca aagtttaata 33240

taaattaaat gacgttccct caaaaacaca ctacccacat acatgatctc ttttggcatg 33300

tgcatattaa caatctgtct gtaccatgga caacgttggt taatcatgca acccaatata 33360

accttccgga accacactgc caacaccgct cccccagcca tgcattgaag tgaaccctgc 33420

tgattacaat gacaatgaag aacccaattc tctcgaccgt gaatcacttg agaatgaaaa 33480

atatctatag tggcacaaca tagacataaa tgcatgcatc ttctcataat ttttaactcc 33540

tcaggattta gaaacatatc ccagggaata ggaagctctt gcagaacagt aaagctggca 33600

gaacaaggaa gaccacgaac acaacttaca ctatgcatag tcatagtatc acaatctggc 33660

aacagcgggt ggtcttcagt catagaagct cgggtttcat tttcctcaca acgtggtaac 33720

tgggctctgg tgtaagggtg atgtctggcg catgatgtcg agcgtgcgcg caaccttgtc 33780

ataatggagt tgcttcctga cattctcgta ttttgtatag caaaacgcgg ccctggcaga 33840

acacactctt cttcgccttc tatcctgccg cttagcgtgt tccgtgtgat agttcaagta 33900

caaccacact cttaagttgg tcaaaagaat gctggcttca gttgtaatca aaactccatc 33960

gcatctaatc gttctgagga aatcatccaa gcaatgcaac tggattgtgt ttcaagcagg 34020

agaggagagg gaagagacgg aagaaccatg ttaattttta ttccaaacga tctcgcagta 34080

cttcaaattg tagatcgcgc agatggcatc tctcgccccc actgtgttgg tgaaaaagca 34140

cagctagatc aaaagaaatg cgattttcaa ggtgctcaac ggtggcttcc agcaaagcct 34200

ccacgcgcac atccaagaac aaaagaatac caaaagaagg agcattttct aactcctcaa 34260

tcatcatatt acattcctgc accattccca gataattttc agctttccag ccttgaatta 34320

ttcgtgtcag ttcttgtggt aaatccaatc cacacattac aaacaggtcc cggagggcgc 34380

cctccaccac cattcttaaa cacaccctca taatgacaaa atatcttgct cctgtgtcac 34440

ctgtagcgaa ttgagaatgg caacatcaat tgacatgccc ttggctctaa gttcttcttt 34500

aagttctagt tgtaaaaact ctctcatatt atcaccaaac tgcttagcca gaagcccccc 34560

gggaacaaga gcaggggacg ctacagtgca gtacaagcgc agacctcccc aattggctcc 34620

agcaaaaaca agattggaat aagcatattg ggaaccgcca gtaatatcat cgaagttgct 34680

ggaaatataa tcaggcagag tttcttgtaa aaattgaata aaagaaaaat ttgccaaaaa 34740

aacattcaaa acctctggga tgcaaatgca ataggttacc gcgctgcgct ccaacattgt 34800

tagttttgaa ttagtctgca aaaataaaaa aaaaaacaag cgtcatatca tagtagcctg 34860

acgaacagat ggataaatca gtctttccat cacaagacaa gccacagggt ctccagctcg 34920

accctcgtaa aacctgtcat catgattaaa caacagcacc gaaagttcct cgcggtgacc 34980

agcatgaata attcttgatg aagcatacaa tccagacatg ttagcatcag ttaacgagaa 35040

aaaacagcca acatagcctt tgggtataat tatgcttaat cgtaagtata gcaaagccac 35100

ccctcgcgga tacaaagtaa aaggcacagg agaataaaaa atataattat ttctctgctg 35160

ctgttcaggc aacgtcgccc ccggtccctc taaatacaca tacaaagcct catcagccat 35220

ggcttaccag acaaagtaca gcgggcacac aaagcacaag ctctaaagtg actctccaac 35280

ctctccacaa tatatatata cacaagccct aaactgacgt aatgggagta aagtgtaaaa 35340

aatcccgcca aacccaacac acaccccgaa actgcgtcac cagggaaaag tacagtttca 35400

cttccgcaat cccaacaggc gtaacttcct ctttctcacg gtacgtgata tcccactaac 35460

ttgcaacgtc attttcccac ggtcgcaccg ccccttttag ccgttaaccc cacagccaat 35520

caccacacga tccacacttt ttaaaatcac ctcatttaca tattggcacc attccatcta 35580

taaggtatat tatatagata ga 35602

<210> 45
<211> 34131
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-345 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes Flt3 Ligand, MIP1a and IFNa, inserted in the region BY. The transgene cassette contains a 5' SSA, Flt3 Ligand cDNA sequence,P2A peptide sequence, MIP1a cDNA

<400> 45
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatgacag tgctggcgcc agcctggagc 29400

ccaacaacct atctcctcct gctgctgctg ctgagctcgg gactcagtgg gacccaggac 29460

tgctccttcc aacacagccc catctcctcc gacttcgctg tcaaaatccg tgagctgtct 29520

gactacctgc ttcaagatta cccagtcacc gtggcctcca acctccagga cgaggagctc 29580

tgcgggggcc tctggcggct ggtcctggca cagcgctgga tggagcggct caagactgtc 29640

gctgggtcca agatgcaagg cttgctggag cgcgtgaaca cggagataca ctttgtcacc 29700

aaatgtgcct ttcagccccc ccccagctgt cttcgcttcg tccagaccaa catctcccgc 29760

ctcctacagg agacctccga gcagctggtg gcgctgaagc cctggatcac tcgccagaac 29820

ttctcccggt gcctggagct gcagtgtcag cccgactcct caaccctgcc acccccatgg 29880

agtccccggc ccctggaggc cacagccccg ggaagcggag ctactaactt cagcctgctg 29940

aagcaggctg gagacgtgga ggagaaccct ggacctcagg tctccactgc tgcccttgcc 30000

gtcctcctct gcaccatggc tctctgcaac caggtcctct ctgcaccact tgctgctgac 30060

acgccgaccg cctgctgctt cagctacacc tcccgacaga ttccacagaa tttcatagct 30120

gactactttg agacgagcag ccagtgctcc aagcccagtg tcatcttcct aaccaagaga 30180

ggccggcagg tctgtgctga ccccagtgag gagtgggtcc agaaatacgt cagtgacctg 30240

gagctgagtg ccggaagcgg agagggcaga ggaagtctgc taacatgcgg tgacgtcgag 30300

gagaatcctg gacctgcctt gacctttgct ttactggtgg ccctcctggt gctcagctgc 30360

aagtcaagct gctctgtggg ctgtgatctg cctcaaaccc acagcctggg tagcaggagg 30420

accttgatgc tcctggcaca gatgaggaga atctctcttt tctcctgctt gaaggacaga 30480

catgactttg gatttcccca ggaggagttt ggcaaccagt tccaaaaggc tgaaaccatc 30540

cctgtcctcc atgagatgat ccagcagatc ttcaatctct tcagcacaaa ggactcatct 30600

gctgcttggg atgagaccct cctagacaaa ttctacactg aactctacca gcagctgaat 30660

gacctggaag cctgtgtgat acaggggtg ggggtgacag agactcccct gatgaaggag 30720

gactccattc tggctgtgag gaaatacttc caaagaatca ctctctatct gaaagagaag 30780

aaatacagcc cttgtgcctg ggaggttgtc agagcagaaa tcatgagatc tttttctttg 30840

tcaacaaact tgcaagaaag tttaagaagt aaggaataag ctagcttgac tgactgagat 30900

acagcgtacc ttcagctcac agacatgata agatacattg atgagtttgg acaaaccaca 30960

actagaatgc agtgaaaaaa atgctttatt tgtgaaattt gtgatgctat tgctttattt 31020

gtaaccatta taagctgcaa taaacaagtt aacaacaaca attgcattca ttttatgttt 31080

caggttcagg gggaggtgtg ggaggttttt taaagcaagt aaaacctcta caaatgtggt 31140

agtcgtcagc tatcctgcag gaacttgttt atttgaaaat caattcacaa aatccgagta 31200

gttattttgc ctccccccttc ccatttaaca gaatacacca atctctcccc acgcacagct 31260

ttaaacattt ggataccatt agatatagac atggttttag attccacatt ccaaacagtt 31320

tcagagcgag ccaatctggg gtcagtgata gataaaaatc catcgggata gtcttttaaa 31380

gcgctttcac agtccaactg ctgcggatgc gactccggag tctggatcac ggtcatctgg 31440

aagaagaacg atgggaatca taatccgaaa acggtatcgg acgattgtgt ctcatcaaac 31500

ccacaagcag ccgctgtctg cgtcgctccg tgcgactgct gtttatggga tcagggtcca 31560

cagtgtcctg aagcatgatt ttaatagccc ttaacatcaa ctttctggtg cgatgcgcgc 31620

agcaacgcat tctgatttca ctcaaatctt tgcagtaggt acaacacatt attacaatat 31680

tgtttaataa accataatta aaagcgctcc agccaaaact catatctgat ataatcgccc 31740

ctgcatgacc atcataccaa agtttaatat aaattaaatg acgttccctc aaaaacacac 31800

tacccacata catgatctct tttggcatgt gcatattaac aatctgtctg taccatggac 31860

aacgttggtt aatcatgcaa cccaatataa ccttccggaa ccacactgcc aacaccgctc 31920

ccccagccat gcattgaagt gaaccctgct gattacaatg acaatgaaga acccaattct 31980

ctcgaccgtg aatcacttga gaatgaaaaa tatctatagt ggcacaacat agacataaat 32040

gcatgcatct tctcataatt tttaactcct caggatttag aaacatatcc cagggaatag 32100

gaagctcttg cagaacagta aagctggcag aacaaggaag accacgaaca caacttacac 32160

tatgcatagt catagtatca caatctggca acagcgggtg gtcttcagtc atagaagctc 32220

gggtttcatt ttcctcacaa cgtggtaact gggctctggt gtaagggtga tgtctggcgc 32280

atgatgtcga gcgtgcgcgc aaccttgtca taatggagtt gcttcctgac attctcgtat 32340

tttgtatagc aaaacgcggc cctggcagaa cacactcttc ttcgccttct atcctgccgc 32400

ttagcgtgtt ccgtgtgata gttcaagtac aaccacactc ttaagttggt caaaagaatg 32460

ctggcttcag ttgtaatcaa aactccatcg catctaatcg ttctgaggaa atcatccaag 32520

caatgcaact ggattgtgtt tcaagcagga gaggagaggg aagagacgga agaaccatgt 32580

taatttttat tccaaacgat ctcgcagtac ttcaaattgt agatcgcgca gatggcatct 32640

ctcgccccca ctgtgttggt gaaaaagcac agctagatca aaagaaatgc gattttcaag 32700

gtgctcaacg gtggcttcca gcaaagcctc cacgcgcaca tccaagaaca aaagaatacc 32760

aaaagaagga gcattttcta actcctcaat catcatatta cattcctgca ccattcccag 32820

ataattttca gctttccagc cttgaattat tcgtgtcagt tcttgtggta aatccaatcc 32880

acacattaca aacaggtccc ggagggcgcc ctccaccacc attcttaaac acaccctcat 32940

aatgacaaaa tatcttgctc ctgtgtcacc tgtagcgaat tgagaatggc aacatcaatt 33000

gacatgccct tggctctaag ttcttcttta agttctagtt gtaaaaactc tctcatatta 33060

tcaccaaact gcttagccag aagccccccg ggaacaagag caggggacgc tacagtgcag 33120

tacaagcgca gacctcccca attggctcca gcaaaaacaa gattggaata agcatattgg 33180

gaaccgccag taatatcatc gaagttgctg gaaatataat caggcagagt ttcttgtaaa 33240

aattgaataa aagaaaaatt tgccaaaaaa acattcaaaa cctctgggat gcaaatgcaa 33300

taggttaccg cgctgcgctc caacattgtt agttttgaat tagtctgcaa aaataaaaaa 33360

aaaaacaagc gtcatatcat agtagcctga cgaacagatg gataaatcag tctttccatc 33420

acaagacaag ccacagggtc tccagctcga ccctcgtaaa acctgtcatc atgattaaac 33480

aacagcaccg aaagttcctc gcggtgacca gcatgaataa ttcttgatga agcatacaat 33540

ccagacatgt tagcatcagt taacgagaaa aaacagccaa catagccttt gggtataatt 33600

atgcttaatc gtaagtatag caaagccacc cctcgcggat acaaagtaaa aggcacagga 33660

gaataaaaaa tataattatt tctctgctgc tgttcaggca acgtcgcccc cggtccctct 33720

aaatacacat acaaagcctc atcagccatg gcttaccaga caaagtacag cgggcacaca 33780

aagcacaagc tctaaagtga ctctccaacc tctccacaat atatatatac acaagcccta 33840

aactgacgta atgggagtaa agtgtaaaaa atcccgccaa acccaacaca caccccgaaa 33900

ctgcgtcacc agggaaaagt acagtttcac ttccgcaatc ccaacaggcg taacttcctc 33960

tttctcacgg tacgtgatat cccactaact tgcaacgtca ttttcccacg gtcgcaccgc 34020

ccctttagc cgttaacccc acagccaatc accacacgat ccacactttt taaaatcacc 34080

tcatttacat attggcacca ttccatctat aaggtatatt atatagatag a 34131

<210> 46
<211> 34432
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-346 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes Flt3 Ligand, MIP1a and CD80, inserted in the region BY. The transgene cassette contains a 5' SSA, Flt3 Ligand cDNA sequence,P2A peptide sequence, MIP1a cDNA

<400> 46
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

ctttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatgacag tgctggcgcc agcctggagc 29400

ccaacaacct atctcctcct gctgctgctg ctgagctcgg gactcagtgg gacccaggac 29460

tgctccttcc aacacagccc catctcctcc gacttcgctg tcaaaatccg tgagctgtct 29520

gactacctgc ttcaagatta cccagtcacc gtggcctcca acctccagga cgaggagctc 29580

tgcgggggcc tctggcggct ggtcctggca cagcgctgga tggagcggct caagactgtc 29640

gctgggtcca agatgcaagg cttgctggag cgcgtgaaca cggagataca ctttgtcacc 29700

aaatgtgcct ttcagccccc ccccagctgt cttcgcttcg tccagaccaa catctcccgc 29760

ctcctacagg agacctccga gcagctggtg gcgctgaagc cctggatcac tcgccagaac 29820

ttctcccggt gcctggagct gcagtgtcag cccgactcct caaccctgcc acccccatgg 29880

agtccccggc ccctggaggc cacagccccg ggaagcggag ctactaactt cagcctgctg 29940

aagcaggctg gagacgtgga ggagaaccct ggacctcagg tctccactgc tgcccttgcc 30000

gtcctcctct gcaccatggc tctctgcaac caggtcctct ctgcaccact tgctgctgac 30060

acgccgaccg cctgctgctt cagctacacc tcccgacaga ttccacagaa tttcatagct 30120

gactactttg agacgagcag ccagtgctcc aagcccagtg tcatcttcct aaccaagaga 30180

ggccggcagg tctgtgctga ccccagtgag gagtgggtcc agaaatacgt cagtgacctg 30240

gagctgagtg ccggaagcgg agagggcaga ggaagtctgc taacatgcgg tgacgtcgag 30300

gagaatcctg gacctggcca cacacggagg cagggaacat caccatccaa gtgtccatac 30360

ctcaatttct ttcagctctt ggtgctggct ggtctttctc acttctgttc aggtgttatc 30420

cacgtgacca aggaagtgaa agaagtggca acgctgtcct gtggtcacaa tgtttctgtt 30480

gaagagctgg cacaaactcg catctactgg caaaaggaga agaaaatggt gctgactatg 30540

atgtctgggg acatgaatat atggcccgag tacaagaacc ggaccatctt tgatatcact 30600

aataacctct ccattgtgat cctggctctg cgcccatctg acgagggcac atacgagtgt 30660

gttgttctga agtatgaaaa agacgctttc aagcgggaac acctggctga agtgacgtta 30720

tcagtcaaag ctgacttccc tacacctagt atatctgact ttgaaattcc aacttctaat 30780

attagaagga taatttgctc aacctctgga ggttttccag agcctcacct ctcctggttg 30840

gaaaatggag aagaattaaa tgccatcaac acaacagttt cccaagatcc tgaaactgag 30900

ctctatgctg ttagcagcaa actggatttc aatatgacaa ccaaccacag cttcatgtgt 30960

ctcatcaagt atggacattt aagagtgaat cagaccttca actggaatac aaccaagcaa 31020

gagcattttc ctgataacct gctcccatcc tgggccatta ccttaatctc agtaaatgga 31080

atttttgtga tatgctgcct gacctactgc tttgccccaa gatgcagaga gagaaggagg 31140

aatgagagat tgagaaggga aagtgtacgc cctgtataag ctagcttgac tgactgagat 31200

acagcgtacc ttcagctcac agacatgata agatacattg atgagtttgg acaaaccaca 31260

actagaatgc agtgaaaaaa atgctttatt tgtgaaattt gtgatgctat tgctttattt 31320

gtaaccatta taagctgcaa taaacaagtt aacaacaaca attgcattca ttttatgttt 31380

caggttcagg gggaggtgtg ggaggttttt taaagcaagt aaaacctcta caaatgtggt 31440

agtcgtcagc tatcctgcag gaacttgttt atttgaaaat caattcacaa aatccgagta 31500

gttattttgc ctccccccttc ccatttaaca gaatacacca atctctcccc acgcacagct 31560

ttaaacattt ggataccatt agatatagac atggttttag attccacatt ccaaacagtt 31620

tcagagcgag ccaatctggg gtcagtgata gataaaaatc catcgggata gtcttttaaa 31680

gcgctttcac agtccaactg ctgcggatgc gactccggag tctggatcac ggtcatctgg 31740

aagaagaacg atgggaatca taatccgaaa acggtatcgg acgattgtgt ctcatcaaac 31800

ccacaagcag ccgctgtctg cgtcgctccg tgcgactgct gtttatggga tcagggtcca 31860

cagtgtcctg aagcatgatt ttaatagccc ttaacatcaa ctttctggtg cgatgcgcgc 31920

agcaacgcat tctgatttca ctcaaatctt tgcagtaggt acaacacatt attacaatat 31980

tgtttaataa accataatta aaagcgctcc agccaaaact catatctgat ataatcgccc 32040

ctgcatgacc atcataccaa agtttaatat aaattaaatg acgttccctc aaaaacacac 32100

tacccacata catgatctct tttggcatgt gcatattaac aatctgtctg taccatggac 32160

aacgttggtt aatcatgcaa cccaatataa ccttccggaa ccacactgcc aacaccgctc 32220

ccccagccat gcattgaagt gaaccctgct gattacaatg acaatgaaga acccaattct 32280

ctcgaccgtg aatcacttga gaatgaaaaa tatctatagt ggcacaacat agacataaat 32340

gcatgcatct tctcataatt tttaactcct caggatttag aaacatatcc cagggaatag 32400

gaagctcttg cagaacagta aagctggcag aacaaggaag accacgaaca caacttacac 32460

tatgcatagt catagtatca caatctggca acagcgggtg gtcttcagtc atagaagctc 32520

gggtttcatt ttcctcacaa cgtggtaact gggctctggt gtaagggtga tgtctggcgc 32580

atgatgtcga gcgtgcgcgc aaccttgtca taatggagtt gcttcctgac attctcgtat 32640

tttgtatagc aaaacgcggc cctggcagaa cacactcttc ttcgccttct atcctgccgc 32700

ttagcgtgtt ccgtgtgata gttcaagtac aaccacactc ttaagttggt caaaagaatg 32760

ctggcttcag ttgtaatcaa aactccatcg catctaatcg ttctgaggaa atcatccaag 32820

caatgcaact ggattgtgtt tcaagcagga gaggagaggg aagagacgga agaaccatgt 32880

taatttttat tccaaacgat ctcgcagtac ttcaaattgt agatcgcgca gatggcatct 32940

ctcgccccca ctgtgttggt gaaaaagcac agctagatca aaagaaatgc gattttcaag 33000

gtgctcaacg gtggcttcca gcaaagcctc cacgcgcaca tccaagaaca aaagaatacc 33060

aaaagaagga gcattttcta actcctcaat catcatatta cattcctgca ccattcccag 33120

ataattttca gctttccagc cttgaattat tcgtgtcagt tcttgtggta aatccaatcc 33180

acacattaca aacaggtccc ggagggcgcc ctccaccacc attcttaaac acaccctcat 33240

aatgacaaaa tatcttgctc ctgtgtcacc tgtagcgaat tgagaatggc aacatcaatt 33300

gacatgccct tggctctaag ttcttcttta agttctagtt gtaaaaactc tctcatatta 33360

tcaccaaact gcttagccag aagccccccg ggaacaagag caggggacgc tacagtgcag 33420

tacaagcgca gacctcccca attggctcca gcaaaaacaa gattggaata agcatattgg 33480

gaaccgccag taatatcatc gaagttgctg gaaatataat caggcagagt ttcttgtaaa 33540

aattgaataa aagaaaaatt tgccaaaaaa acattcaaaa cctctgggat gcaaatgcaa 33600

taggttaccg cgctgcgctc caacattgtt agttttgaat tagtctgcaa aaataaaaaa 33660

aaaaacaagc gtcatatcat agtagcctga cgaacagatg gataaatcag tctttccatc 33720

acaagacaag ccacagggtc tccagctcga ccctcgtaaa acctgtcatc atgattaaac 33780

aacagcaccg aaagttcctc gcggtgacca gcatgaataa ttcttgatga agcatacaat 33840

ccagacatgt tagcatcagt taacgagaaa aaacagccaa catagccttt gggtataatt 33900

atgcttaatc gtaagtatag caaagccacc cctcgcggat acaaagtaaa aggcacagga 33960

gaataaaaaa tataattatt tctctgctgc tgttcaggca acgtcgcccc cggtccctct 34020

aaatacacat acaaagcctc atcagccatg gcttaccaga caaagtacag cgggcacaca 34080

aagcacaagc tctaaagtga ctctccaacc tctccacaat atatatatac acaagcccta 34140

aactgacgta atgggagtaa agtgtaaaaa atcccgccaa acccaacaca caccccgaaa 34200

ctgcgtcacc agggaaaagt acagtttcac ttccgcaatc ccaacaggcg taacttcctc 34260

tttctcacgg tacgtgatat cccactaact tgcaacgtca ttttcccacg gtcgcaccgc 34320

ccctttagc cgttaacccc acagccaatc accacacgat ccacactttt taaaatcacc 34380

tcatttacat attggcacca ttccatctat aaggtatatt atatagatag ga 34432

<210> 47
<211> 34458
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-347 virus genome sequence comprising the EnAd genome with a

transgene cassette that encodes IFNa, MIP1a and CD80, inserted in the region BY

<400> 47

tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt cattttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc accatggcct tgacctttgc tttactggtg 29400

gccctcctgg tgctcagctg caagtcaagc tgctctgtgg gctgtgatct gcctcaaacc 29460

cacagcctgg gtagcaggag gaccttgatg ctcctggcac agatgaggag aatctctctt 29520

ttctcctgct tgaaggacag acatgacttt ggatttcccc aggaggagtt tggcaaccag 29580

ttccaaaagg ctgaaaccat ccctgtcctc catgagatga tccagcagat cttcaatctc 29640

ttcagcacaa aggactcatc tgctgcttgg gatgagaccc tcctagacaa attctacact 29700

gaactctacc agcagctgaa tgacctggaa gcctgtgtga tacaggggggt gggggtgaca 29760

gagactcccc tgatgaagga ggactccatt ctggctgtga ggaaatactt ccaaagaatc 29820

actctctatc tgaaagagaa gaaatacagc ccttgtgcct gggaggttgt cagagcagaa 29880

atcatgagat ctttttcttt gtcaacaaac ttgcaagaaa gtttaagaag taaggaagga 29940

agcggagcta ctaacttcag cctgctgaag caggctggag acgtggagga gaaccctgga 30000

cctcaggtct ccactgctgc ccttgccgtc ctcctctgca ccatggctct ctgcaaccag 30060

gtcctctctg caccacttgc tgctgacacg ccgaccgcct gctgcttcag ctacacctcc 30120

cgacagattc cacagaattt catagctgac tactttgaga cgagcagcca gtgctccaag 30180

cccagtgtca tcttcctaac caagagaggc cggcaggtct gtgctgaccc cagtgaggag 30240

tgggtccaga aatacgtcag tgacctggag ctgagtgccg gaagcggaga gggcagagga 30300

agtctgctaa catgcggtga cgtcgaggag aatcctggac ctggccacac acggaggcag 30360

ggaacatcac catccaagtg tccatacctc aatttctttc agctcttggt gctggctggt 30420

ctttctcact tctgttcagg tgttatccac gtgaccaagg aagtgaaaga agtggcaacg 30480

ctgtcctgtg gtcacaatgt ttctgttgaa gagctggcac aaactcgcat ctactggcaa 30540

aaggagaaga aaatggtgct gactatgatg tctggggaca tgaatatatg gcccgagtac 30600

aagaaccgga ccatctttga tatcactaat aacctctcca ttgtgatcct ggctctgcgc 30660

ccatctgacg agggcacata cgagtgtgtt gttctgaagt atgaaaaaga cgctttcaag 30720

cgggaacacc tggctgaagt gacgttatca gtcaaagctg acttccctac acctagtata 30780

tctgactttg aaattccaac ttctaatatt agaaggataa tttgctcaac ctctggaggt 30840

tttccagagc ctcacctctc ctggttggaa aatggagaag aattaaatgc catcaacaca 30900

acagtttccc aagatcctga aactgagctc tatgctgtta gcagcaaact ggatttcaat 30960

atgacaacca accacagctt catgtgtctc atcaagtatg gacatttaag agtgaatcag 31020

accttcaact ggaatacaac caagcaagag cattttcctg ataacctgct cccatcctgg 31080

gccattacct taatctcagt aaatggaatt tttgtgatat gctgcctgac ctactgcttt 31140

gccccaagat gcagagagag aaggaggaat gagagattga gaagggaaag tgtacgccct 31200

gtataagcta gcttgactga ctgagataca gcgtaccttc agctcacaga catgataaga 31260

tacattgatg agtttggaca aaccacaact agaatgcagt gaaaaaaatg ctttatttgt 31320

gaaatttgtg atgctattgc tttatttgta accattataa gctgcaataa acaagttaac 31380

aacaacaatt gcattcattt tatgtttcag gttcaggggg aggtgtggga ggtttttaa 31440

agcaagtaaa acctctacaa atgtggtagt cgtcagctat cctgcaggaa cttgtttatt 31500

tgaaaatcaa ttcacaaaat ccgagtagtt attttgcctc ccccttccca tttaacagaa 31560

tacaccaatc tctccccacg cacagcttta aacatttgga taccattaga tatagacatg 31620

gttttagatt ccacattcca aacagtttca gagcgagcca atctggggtc agtgatagat 31680

aaaaatccat cgggatagtc ttttaaagcg ctttcacagt ccaactgctg cggatgcgac 31740

tccggagtct ggatcacggt catctggaag aagaacgatg ggaatcataa tccgaaaacg 31800

gtatcggacg attgtgtctc atcaaaccca caagcagccg ctgtctgcgt cgctccgtgc 31860

gactgctgtt tatgggatca gggtccacag tgtcctgaag catgatttta atagccctta 31920

acatcaactt tctggtgcga tgcgcgcagc aacgcattct gatttcactc aaatctttgc 31980

agtaggtaca acacattatt acaatattgt ttaataaacc ataattaaaa gcgctccagc 32040

caaaactcat atctgatata atcgcccctg catgaccatc ataccaaagt ttaatataaa 32100

ttaaatgacg ttccctcaaa aacacactac ccacatacat gatctctttt ggcatgtgca 32160

tattaacaat ctgtctgtac catggacaac gttggttaat catgcaaccc aatataacct 32220

tccggaacca cactgccaac accgctcccc cagccatgca ttgaagtgaa ccctgctgat 32280

tacaatgaca atgaagaacc caattctctc gaccgtgaat cacttgagaa tgaaaaatat 32340

ctatagtggc acaacataga cataaatgca tgcatcttct cataattttt aactcctcag 32400

gatttagaaa catatcccag ggaataggaa gctcttgcag aacagtaaag ctggcagaac 32460

aaggaagacc acgaacacaa cttacactat gcatagtcat agtatcacaa tctggcaaca 32520

gcgggtggtc ttcagtcata gaagctcggg tttcattttc ctcacaacgt ggtaactggg 32580

ctctggtgta agggtgatgt ctggcgcatg atgtcgagcg tgcgcgcaac cttgtcataa 32640

tggagttgct tcctgacatt ctcgtatttt gtatagcaaa acgcggccct ggcagaacac 32700

actcttcttc gccttctatc ctgccgctta gcgtgttccg tgtgatagtt caagtacaac 32760

cacactctta agttggtcaa aagaatgctg gcttcagttg taatcaaaac tccatcgcat 32820

ctaatcgttc tgaggaaatc atccaagcaa tgcaactgga ttgtgtttca agcaggagag 32880

gagagggaag agacggaaga accatgttaa tttttattcc aaacgatctc gcagtacttc 32940

aaattgtaga tcgcgcagat ggcatctctc gcccccactg tgttggtgaa aaagcacagc 33000

tagatcaaaa gaaatgcgat tttcaaggtg ctcaacggtg gcttccagca aagcctccac 33060

gcgcacatcc aagaacaaaa gaataccaaa agaaggagca ttttctaact cctcaatcat 33120

catattacat tcctgcacca ttcccagata attttcagct ttccagcctt gaattattcg 33180

tgtcagttct tgtggtaaat ccaatccaca cattacaaac aggtcccgga gggcgccctc 33240

caccaccatt cttaaacaca ccctcataat gacaaaatat cttgctcctg tgtcacctgt 33300

agcgaattga gaatggcaac atcaattgac atgcccttgg ctctaagttc ttctttaagt 33360

tctagttgta aaaactctct catattatca ccaaactgct tagccagaag ccccccggga 33420

acaagagcag gggacgctac agtgcagtac aagcgcagac ctccccaatt ggctccagca 33480

aaaacaagat tggaataagc atattgggaa ccgccagtaa tatcatcgaa gttgctggaa 33540

atataatcag gcagagtttc ttgtaaaaat tgaataaaag aaaaatttgc caaaaaaaca 33600

ttcaaaacct ctgggatgca aatgcaatag gttaccgcgc tgcgctccaa cattgttagt 33660

tttgaattag tctgcaaaaa taaaaaaaaa aacaagcgtc atatcatagt agcctgacga 33720

acagatggat aaatcagtct ttccatcaca agacaagcca cagggtctcc agctcgaccc 33780

tcgtaaaacc tgtcatcatg attaaacaac agcaccgaaa gttcctcgcg gtgaccagca 33840

tgaataattc ttgatgaagc atacaatcca gacatgttag catcagttaa cgagaaaaaa 33900

cagccaacat agcctttggg tataattatg cttaatcgta agtatagcaa agccacccct 33960

cgcggataca aagtaaaagg cacaggagaa taaaaaatat aattatttct ctgctgctgt 34020

tcaggcaacg tcgcccccgg tccctctaaa tacacataca aagcctcatc agccatggct 34080

taccagacaa agtacagcgg gcacacaaag cacaagctct aaagtgactc tccaacctct 34140

ccacaatata tatatacaca agccctaaac tgacgtaatg ggagtaaagt gtaaaaaatc 34200

ccgccaaacc caacacacac cccgaaactg cgtcaccagg gaaaagtaca gtttcacttc 34260

cgcaatccca acaggcgtaa cttcctcttt ctcacggtac gtgatatccc actaacttgc 34320

aacgtcattt tcccacggtc gcaccgcccc ttttagccgt taaccccaca gccaatcacc 34380

acacgatcca cacttttaa aatcacctca tttacatatt ggcaccattc catctataag 34440

gtatattata tagataga 34458

<210> 48
<211> 34522
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-348 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes a membrane-anchored chimeric form of the single chain Fv anti-human CD3e and the T lymphocyte activation antigen, CD80 inserted in the region BY.

<400> 48
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgta tcatcctctt 29400

cttggtagca acagctacag gtgtccactc ccaggtgcag ctgcagcagt ctggggctga 29460

actggcaaga cctggggcct cagtgaagat gtcctgcaag gcttctggct acacctttac 29520

taggtacacg atgcactggg taaaacagag gcctggacag ggtctggaat ggattggata 29580

cattaatcct agccgtggtt atactaatta caatcagaag ttcaaggaca aggccacatt 29640

gactacagac aaatcctcca gcacagccta catgcaactg agcagcctga catctgagga 29700

ctctgcagtc tattactgtg caagatatta tgatgatcat tactgccttg actactgggg 29760

ccaaggcacc actctcacag tctcctcagg tggcggtggc tcgggcggtg gtggatctgg 29820

tggcggcgga tctgatatcg tgctcactca gtctccagca atcatgtctg catctccagg 29880

ggagaaggtc accatgacct gcagtgccag ctcaagtgta agttacatga actggtacca 29940

gcagaagtca ggcacctccc ccaaaagatg gatttatgac acatccaaac tggcttctgg 30000

agtccctgct cacttcaggg gcagtgggtc tgggacctct tactctctca caatcagcgg 30060

catggaggct gaagatgctg ccacttatta ctgccagcag tggagtagta acccattcac 30120

gttcggctcg gggacaaagt tggaaataaa ccggggatcc gaacaaaaac tcatctcaga 30180

agaggatctg aatgctgtgg gccaggacac gcaggaggtc atcgtggtgc cacactcctt 30240

gcccttaag gtggtggtga tctcagccat cctggccctg gtggtgctca ccatcatctc 30300

ccttatcatc ctcatcatgc tttggcagaa gaagccacgt ggaagcggag ctactaactt 30360

cagcctgctg aagcaggctg gagacgtgga ggagaaccct ggacctggcc acacacggag 30420

gcagggaaca tcaccatcca agtgtccata cctcaatttc tttcagctct tggtgctggc 30480

tggtctttct cacttctgtt caggtgttat ccacgtgacc aaggaagtga aagaagtggc 30540

aacgctgtcc tgtggtcaca atgtttctgt tgaagagctg gcacaaactc gcatctactg 30600

gcaaaaggag aagaaaatgg tgctgactat gatgtctggg gacatgaata tatggcccga 30660

gtacaagaac cggaccatct ttgatatcac taataacctc tccattgtga tcctggctct 30720

gcgcccatct gacgagggca catacgagtg tgttgttctg aagtatgaaa aagacgcttt 30780

caagcgggaa cacctggctg aagtgacgtt atcagtcaaa gctgacttcc ctacacctag 30840

tatatctgac tttgaaattc caacttctaa tattagaagg ataatttgct caacctctgg 30900

aggttttcca gagcctcacc tctcctggtt ggaaaatgga gaagaattaa atgccatcaa 30960

cacaacagtt tcccaagatc ctgaaactga gctctatgct gttagcagca aactggattt 31020

caatatgaca accaaccaca gcttcatgtg tctcatcaag tatggacatt taagagtgaa 31080

tcagaccttc aactggaata caaccaagca agagcatttt cctgataacc tgctcccatc 31140

ctgggccatt accttaatct cagtaaatgg aatttttgtg atatgctgcc tgacctactg 31200

ctttgcccca agatgcagag agagaaggag gaatgagaga ttgagaaggg aaagtgtacg 31260

ccctgtataa gctagcttga ctgactgaga tacagcgtac cttcagctca cagacatgat 31320

aagatacatt gatgagtttg gacaaaccac aactagaatg cagtgaaaaa aatgctttat 31380

ttgtgaaatt tgtgatgcta ttgctttatt tgtaaccatt ataagctgca ataaacaagt 31440

taacaacaac aattgcattc attttatgtt tcaggttcag ggggaggtgt gggaggtttt 31500

ttaaagcaag taaaacctct acaaatgtgg tagtcgtcag ctatcctgca ggaacttgtt 31560

tatttgaaaa tcaattcaca aaatccgagt agttattttg cctccccctt cccatttaac 31620

agaatacacc aatctctccc cacgcacagc tttaaacatt tggataccat tagatataga 31680

catggtttta gattccacat tccaaacagt ttcagagcga gccaatctgg ggtcagtgat 31740

agataaaaat ccatcgggat agtcttttaa agcgctttca cagtccaact gctgcggatg 31800

cgactccgga gtctggatca cggtcatctg gaagaagaac gatgggaatc ataatccgaa 31860

aacggtatcg gacgattgtg tctcatcaaa cccacaagca gccgctgtct gcgtcgctcc 31920

gtgcgactgc tgtttatggg atcagggtcc acagtgtcct gaagcatgat tttaatagcc 31980

cttaacatca actttctggt gcgatgcgcg cagcaacgca ttctgatttc actcaaatct 32040

ttgcagtagg tacaacacat tattacaata ttgtttaata aaccataatt aaaagcgctc 32100

cagccaaaac tcatatctga tataatcgcc cctgcatgac catcatacca aagtttaata 32160

taaattaaat gacgttccct caaaaacaca ctacccacat acatgatctc ttttggcatg 32220

tgcatattaa caatctgtct gtaccatgga caacgttggt taatcatgca acccaatata 32280

accttccgga accacactgc caacaccgct cccccagcca tgcattgaag tgaaccctgc 32340

tgattacaat gacaatgaag aacccaattc tctcgaccgt gaatcacttg agaatgaaaa 32400

atatctatag tggcacaaca tagacataaa tgcatgcatc ttctcataat ttttaactcc 32460

tcaggattta gaaacatatc ccagggaata ggaagctctt gcagaacagt aaagctggca 32520

gaacaaggaa gaccacgaac acaacttaca ctatgcatag tcatagtatc acaatctggc 32580

aacagcgggt ggtcttcagt catagaagct cgggtttcat tttcctcaca acgtggtaac 32640

tgggctctgg tgtaagggtg atgtctggcg catgatgtcg agcgtgcgcg caaccttgtc 32700

ataatggagt tgcttcctga cattctcgta ttttgtatag caaaacgcgg ccctggcaga 32760

acacactctt cttcgccttc tatcctgccg cttagcgtgt tccgtgtgat agttcaagta 32820

caaccacact cttaagttgg tcaaaagaat gctggcttca gttgtaatca aaactccatc 32880

gcatctaatc gttctgagga aatcatccaa gcaatgcaac tggattgtgt ttcaagcagg 32940

agaggagagg gaagagacgg aagaaccatg ttaattttta ttccaaacga tctcgcagta 33000

cttcaaattg tagatcgcgc agatggcatc tctcgccccc actgtgttgg tgaaaaagca 33060

cagctagatc aaaagaaatg cgattttcaa ggtgctcaac ggtggcttcc agcaaagcct 33120

ccacgcgcac atccaagaac aaaagaatac caaaagaagg agcattttct aactcctcaa 33180

tcatcatatt acattcctgc accattccca gataattttc agctttccag ccttgaatta 33240

ttcgtgtcag ttcttgtggt aaatccaatc cacacattac aaacaggtcc cggagggcgc 33300

cctccaccac cattcttaaa cacaccctca taatgacaaa atatcttgct cctgtgtcac 33360

ctgtagcgaa ttgagaatgg caacatcaat tgacatgccc ttggctctaa gttcttcttt 33420

aagttctagt tgtaaaaact ctctcatatt atcaccaaac tgcttagcca gaagcccccc 33480

gggaacaaga gcaggggacg ctacagtgca gtacaagcgc agacctcccc aattggctcc 33540

agcaaaaaca agattggaat aagcatattg ggaaccgcca gtaatatcat cgaagttgct 33600

ggaaatataa tcaggcagag tttcttgtaa aaattgaata aaagaaaaat ttgccaaaaa 33660

aacattcaaa acctctggga tgcaaatgca ataggttacc gcgctgcgct ccaacattgt 33720

tagttttgaa ttagtctgca aaaataaaaa aaaaaacaag cgtcatatca tagtagcctg 33780

acgaacagat ggataaatca gtctttccat cacaagacaa gccacagggt ctccagctcg 33840

accctcgtaa aacctgtcat catgattaaa caacagcacc gaaagttcct cgcggtgacc 33900

agcatgaata attcttgatg aagcatacaa tccagacatg ttagcatcag ttaacgagaa 33960

aaaacagcca acatagcctt tgggtataat tatgcttaat cgtaagtata gcaaagccac 34020

ccctcgcgga tacaaagtaa aaggcacagg agaataaaaa atataattat ttctctgctg 34080

ctgttcaggc aacgtcgccc ccggtccctc taaatacaca tacaaagcct catcagccat 34140

ggcttaccag acaaagtaca gcgggcacac aaagcacaag ctctaaagtg actctccaac 34200

ctctccacaa tatatatata cacaagccct aaactgacgt aatgggagta aagtgtaaaa 34260

aatcccgcca aacccaacac acaccccgaa actgcgtcac cagggaaaag tacagtttca 34320

cttccgcaat cccaacaggc gtaacttcct ctttctcacg gtacgtgata tcccactaac 34380

ttgcaacgtc attttcccac ggtcgcaccg ccccttttag ccgttaaccc cacagccaat 34440

caccacacga tccacacttt ttaaaatcac ctcatttaca tattggcacc attccatcta 34500

taaggtatat tatatagata ga 34522

<210> 49
<211> 34555
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-348A virus genome sequence comprising the EnAd genome with a transgene cassette that encodes a membrane-anchored chimeric form of the single chain Fv anti-human CD3e with C-terminal V5 tag and the T lymphocyte activation antigen

<400> 49
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgta tcatcctctt 29400

cttggtagca acagctacag gtgtccactc ccaggtgcag ctgcagcagt ctggggctga 29460

actggcaaga cctggggcct cagtgaagat gtcctgcaag gcttctggct acacctttac 29520

taggtacacg atgcactggg taaaacagag gcctggacag ggtctggaat ggattggata 29580

cattaatcct agccgtggtt atactaatta caatcagaag ttcaaggaca aggccacatt 29640

gactacagac aaatcctcca gcacagccta catgcaactg agcagcctga catctgagga 29700

ctctgcagtc tattactgtg caagatatta tgatgatcat tactgccttg actactgggg 29760

ccaaggcacc actctcacag tctcctcagg tggcggtggc tcgggcggtg gtggatctgg 29820

tggcggcgga tctgatatcg tgctcactca gtctccagca atcatgtctg catctccagg 29880

ggagaaggtc accatgacct gcagtgccag ctcaagtgta agttacatga actggtacca 29940

gcagaagtca ggcacctccc ccaaaagatg gatttatgac acatccaaac tggcttctgg 30000

agtccctgct cacttcaggg gcagtgggtc tgggacctct tactctctca caatcagcgg 30060

catggaggct gaagatgctg ccacttatta ctgccagcag tggagtagta acccattcac 30120

gttcggctcg gggacaaagt tggaaataaa ccggggatcc gaacaaaaac tcatctcaga 30180

agaggatctg aatgctgtgg gccaggacac gcaggaggtc atcgtggtgc cacactcctt 30240

gcccttaag gtggtggtga tctcagccat cctggccctg gtggtgctca ccatcatctc 30300

ccttatcatc ctcatcatgc tttggcagaa gaagccacgt ggttcaatcc ctaaccctct 30360

cctcggtctc gatggaagcg gagctactaa cttcagcctg ctgaagcagg ctggagacgt 30420

ggaggagaac cctggacctg gccacacacg gaggcaggga acatcaccat ccaagtgtcc 30480

atacctcaat ttctttcagc tcttggtgct ggctggtctt tctcacttct gttcaggtgt 30540

tatccacgtg accaaggaag tgaaagaagt ggcaacgctg tcctgtggtc acaatgtttc 30600

tgttgaagag ctggcacaaa ctcgcatcta ctggcaaaag gagaagaaaa tggtgctgac 30660

tatgatgtct ggggacatga atatatggcc cgagtacaag aaccggacca tctttgatat 30720

cactaataac ctctccattg tgatcctggc tctgcgccca tctgacgagg gcacatacga 30780

gtgtgttgtt ctgaagtatg aaaaagacgc tttcaagcgg gaacacctgg ctgaagtgac 30840

gttatcagtc aaagctgact tccctacacc tagtatatct gactttgaaa ttccaacttc 30900

taatattaga aggataattt gctcaacctc tggaggtttt ccagagcctc acctctcctg 30960

gttggaaaat ggagaagaat taaatgccat caacacaaca gtttcccaag atcctgaaac 31020

tgagctctat gctgttagca gcaaactgga tttcaatatg acaaccaacc acagcttcat 31080

gtgtctcatc aagtatggac atttaagagt gaatcagacc ttcaactgga atacaaccaa 31140

gcaagagcat tttcctgata acctgctccc atcctgggcc attaccttaa tctcagtaaa 31200

tggaattttt gtgatatgct gcctgaccta ctgctttgcc ccaagatgca gagagagaag 31260

gaggaatgag agattgagaa gggaaagtgt acgccctgta taagctagct tgactgactg 31320

agatacagcg taccttcagc tcacagacat gataagatac attgatgagt ttggacaaac 31380

cacaactaga atgcagtgaa aaaaatgctt tatttgtgaa atttgtgatg ctattgcttt 31440

atttgtaacc attataagct gcaataaaca agttaacaac aacaattgca ttcattttat 31500

gtttcaggtt caggggggagg tgtgggaggt tttttaaagc aagtaaaacc tctacaaatg 31560

tggtagtcgt cagctatcct gcaggaactt gtttatttga aaatcaattc acaaaatccg 31620

agtagttatt ttgcctcccc cttcccattt aacagaatac accaatctct ccccacgcac 31680

agctttaaac atttggatac cattagatat agacatggtt ttagattcca cattccaaac 31740

agtttcagag cgagccaatc tggggtcagt gatagataaa aatccatcgg gatagtcttt 31800

taaagcgctt tcacagtcca actgctgcgg atgcgactcc ggagtctgga tcacggtcat 31860

ctggaagaag aacgatggga atcataatcc gaaaacggta tcggacgatt gtgtctcatc 31920

aaacccacaa gcagccgctg tctgcgtcgc tccgtgcgac tgctgtttat gggatcaggg 31980

tccacagtgt cctgaagcat gattttaata gcccttaaca tcaactttct ggtgcgatgc 32040

gcgcagcaac gcattctgat ttcactcaaa tctttgcagt aggtacaaca cattattaca 32100

atattgttta ataaaccata attaaaagcg ctccagccaa aactcatatc tgatataatc 32160

gcccctgcat gaccatcata ccaaagttta atataaatta aatgacgttc cctcaaaaac 32220

acactaccca catacatgat ctcttttggc atgtgcatat taacaatctg tctgtaccat 32280

ggacaacgtt ggttaatcat gcaacccaat ataaccttcc ggaaccacac tgccaacacc 32340

gctcccccag ccatgcattg aagtgaaccc tgctgattac aatgacaatg aagaacccaa 32400

ttctctcgac cgtgaatcac ttgagaatga aaaatatcta tagtggcaca acatagacat 32460

aaatgcatgc atcttctcat aatttttaac tcctcaggat ttagaaacat atcccaggga 32520

ataggaagct cttgcagaac agtaaagctg gcagaacaag gaagaccacg aacacaactt 32580

acactatgca tagtcatagt atcacaatct ggcaacagcg ggtggtcttc agtcatagaa 32640

gctcgggttt cattttcctc acaacgtggt aactgggctc tggtgtaagg gtgatgtctg 32700

gcgcatgatg tcgagcgtgc gcgcaacctt gtcataatgg agttgcttcc tgacattctc 32760

gtattttgta tagcaaaacg cggccctggc agaacacact cttcttcgcc ttctatcctg 32820

ccgcttagcg tgttccgtgt gatagttcaa gtacaaccac actcttaagt tggtcaaaag 32880

aatgctggct tcagttgtaa tcaaaactcc atcgcatcta atcgttctga ggaaatcatc 32940

caagcaatgc aactggattg tgtttcaagc aggagaggag agggaagaga cggaagaacc 33000

atgttaattt ttattccaaa cgatctcgca gtacttcaaa ttgtagatcg cgcagatggc 33060

atctctcgcc cccactgtgt tggtgaaaaa gcacagctag atcaaaagaa atgcgatttt 33120

caaggtgctc aacggtggct tccagcaaag cctccacgcg cacatccaag aacaaaagaa 33180

taccaaaaga aggagcattt tctaactcct caatcatcat attacattcc tgcaccattc 33240

ccagataatt ttcagctttc cagccttgaa ttattcgtgt cagttcttgt ggtaaatcca 33300

atccacacat tacaaacagg tcccggaggg cgccctccac caccattctt aaacacaccc 33360

tcataatgac aaaatatctt gctcctgtgt cacctgtagc gaattgagaa tggcaacatc 33420

aattgacatg cccttggctc taagttcttc tttaagttct agttgtaaaa actctctcat 33480

attatcacca aactgcttag ccagaagccc cccgggaaca agagcagggg acgctacagt 33540

gcagtacaag cgcagacctc cccaattggc tccagcaaaa acaagattgg aataagcata 33600

ttgggaaccg ccagtaatat catcgaagtt gctggaaata taatcaggca gagtttcttg 33660

taaaaattga ataaaagaaa aatttgccaa aaaaacattc aaaacctctg ggatgcaaat 33720

gcaataggtt accgcgctgc gctccaacat tgttagtttt gaattagtct gcaaaaataa 33780

aaaaaaaaac aagcgtcata tcatagtagc ctgacgaaca gatggataaa tcagtctttc 33840

catcacaaga caagccacag ggtctccagc tcgaccctcg taaaacctgt catcatgatt 33900

aaacaacagc accgaaagtt cctcgcggtg accagcatga ataattcttg atgaagcata 33960

caatccagac atgttagcat cagttaacga gaaaaaacag ccaacatagc ctttgggtat 34020

aattatgctt aatcgtaagt atagcaaagc cacccctcgc ggatacaaag taaaaggcac 34080

aggagaataa aaaatataat tatttctctg ctgctgttca ggcaacgtcg cccccggtcc 34140

ctctaaatac acatacaaag cctcatcagc catggcttac cagacaaagt acagcgggca 34200

cacaaagcac aagctctaaa gtgactctcc aacctctcca caatatatat atacacaagc 34260

cctaaactga cgtaatggga gtaaagtgta aaaaatcccg ccaaacccaa cacacacccc 34320

gaaactgcgt caccagggaa aagtacagtt tcacttccgc aatcccaaca ggcgtaactt 34380

cctctttctc acggtacgtg atatcccact aacttgcaac gtcattttcc cacggtcgca 34440

ccgccccttt tagccgttaa ccccacagcc aatcaccaca cgatccacac tttttaaaat 34500

cacctcattt acatattggc accattccat ctataaggta tattatatag ataga 34555

<210> 50
<211> 34794
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-350A genome sequence

<400> 50
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

ctttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggac tggacctggc gcatcctgtt 29400

cttggtggca gctgctacgg gagctcattc ccaggtgcag ctggtgcaat ccggcgctga 29460

ggtgaagaaa cccggggctt cagtcaaagt cagctgcaag gctagcggct acacctttac 29520

tggctattac atgcactggg tgaggcaggc tccgggacag ggtctggaat ggatgggatg 29580

gatcaatccg gacagcggcg ggaccaatta cgcacaaaag ttccaaggcc gcgtgacgat 29640

gacccgggac acttcgatct caaccgccta catggagctg aaccgcctga ggtcggatga 29700

caccgctgtg tactactgcg ctcgcgacca acccctgggg tactgcacca acggagtgtg 29760

ttcatacttc gactactggg gccaaggcac gctggtcact gtgtcatcgg cgtccactaa 29820

gggcccgtcg gtcttcccac tagctccgtg ctcgcggtcg acttcggaat caactgcggc 29880

actcggatgc cttgtcaagg actacttccc agaacccgtg accgtctcgt ggaactcagg 29940

cgccctgacg agcggtgtcc acactttccc ggcggtgctg cagtcatcgg ggctatacag 30000

cctgagcagc gtggttactg tgccgtcatc aaacttcggg acccagactt acacttgcaa 30060

tgtggaccac aagccgtcaa ataccaaagt ggacaagact gtggaacgca aatgttgcgt 30120

ggaatgccct ccgtgcccgg ccccccccagt cgctggccca tccgtgttcc tcttccctcc 30180

gaagccaaaa gacactctga tgatttcgag aactccggag gtcacttgcg tggtggtcga 30240

cgtgtcgcac gaggatccag aggtgcagtt caactggtac gtggatggag tggaggtgca 30300

caatgccaag accaagccgc gcgaagaaca attcaactcc acctttcggg tcgtgtccgt 30360

gctgaccgtg gtacaccaag actggctgaa cggaaaggag tacaaatgca aggtgagcaa 30420

caaggggctg ccggctccaa tcgaaaagac catctcaaag actaaggggc aacctcgcga 30480

gccacaggtg tataccctgc ctccaagcag ggaggaaatg accaaaaacc aggtgagcct 30540

gacctgtctg gtgaagggct ttaccccag cgacatcgcc gtcgagtggg aaagcaacgg 30600

acaacccgag aacaactaca agaccactcc gcccatgctg gactccgacg ggtcattttt 30660

cctgtactca aagctgactg tggacaagtc ccggtggcag caaggtaacg tgttctcctg 30720

ctcggtgatg cacgaagctt tgcacaacca ctacactcaa aagtcacttt ccttgtcacc 30780

gggcaagggg tcgggcgcca ctaacttttc cttgctcaag caggcgggcg atgtggagga 30840

gaatccgggc ccgcgcctcc cggcgcaact gctgggcctc ctcctcctct ggtttcccgg 30900

ctcccgctgt gacatccaga tgactcagtc gcccagctcc gtgtccgcat cggtgggga 30960

cagagtcacc atcacctgca gagcttcaca agggatctat tcctggctgg cgtggtatca 31020

gcagaagcct ggaaaggccc ccaacctcct gatttacacc gcatcgactc tccagtcagg 31080

cgtgccatcc cggttctcag ggtccggctc cggaaccgac ttcactctga ctatcagctc 31140

cctgcaacca gaagatttcg ctacctacta ctgccagcag gcaaacatct ttccgctaac 31200

tttcggcgga ggcacgaagg tggagatcaa gagaaccgtg gcggcccctt ccgtcttcat 31260

cttcccaccg tcagacgaac aactcaaatc cggtaccgcc tccgtcgtgt gcctgctcaa 31320

taacttctat ccacgcgagg ccaaggtcca gtggaaagtg gataacgccc tgcagtccgg 31380

aaacagccag gagtcagtga ccgaacagga ttccaaggac agcacttact cgctctcaag 31440

caccctcacc ctgtcgaagg cggattacga gaagcacaaa gtctacgcct gcgaagtgac 31500

tcatcaagga ctctcatcac cggtaactaa gagcttcaat cgcggagaat gctaggctag 31560

cttgactgac tgagatacag cgtaccttca gctcacagac atgataagat acattgatga 31620

gtttggacaa accacaacta gaatgcagtg aaaaaaatgc tttatttgtg aaatttgtga 31680

tgctattgct ttatttgtaa ccattataag ctgcaataaa caagttaaca acaacaattg 31740

cattcatttt atgtttcagg ttcaggggga ggtgtgggag gtttttaaa gcaagtaaaa 31800

cctctacaaa tgtggtcctg caggaacttg tttatttgaa aatcaattca caaaatccga 31860

gtagttattt tgcctccccc ttcccattta acagaataca ccaatctctc cccacgcaca 31920

gctttaaaca tttggatacc attagatata gacatggttt tagattccac attccaaaca 31980

gtttcagagc gagccaatct ggggtcagtg atagataaaa atccatcggg atagtctttt 32040

aaagcgcttt cacagtccaa ctgctgcgga tgcgactccg gagtctggat cacggtcatc 32100

tggaagaaga acgatgggaa tcataatccg aaaacggtat cggacgattg tgtctcatca 32160

aacccacaag cagccgctgt ctgcgtcgct ccgtgcgact gctgtttatg ggatcagggt 32220

ccacagtgtc ctgaagcatg attttaatag cccttaacat caactttctg gtgcgatgcg 32280

cgcagcaacg cattctgatt tcactcaaat ctttgcagta ggtacaacac attattacaa 32340

tattgtttaa taaaccataa ttaaaagcgc tccagccaaa actcatatct gatataatcg 32400

cccctgcatg accatcatac caaagtttaa tataaattaa atgacgttcc ctcaaaaaca 32460

cactacccac atacatgatc tcttttggca tgtgcatatt aacaatctgt ctgtaccatg 32520

gacaacgttg gttaatcatg caacccaata taaccttccg gaaccacact gccaacaccg 32580

ctcccccagc catgcattga agtgaaccct gctgattaca atgacaatga agaacccaat 32640

tctctcgacc gtgaatcact tgagaatgaa aaatatctat agtggcacaa catagacata 32700

aatgcatgca tcttctcata atttttaact cctcaggatt tagaaacata tcccagggaa 32760

taggaagctc ttgcagaaca gtaaagctgg cagaacaagg aagaccacga acacaactta 32820

cactatgcat agtcatagta tcacaatctg gcaacagcgg gtggtcttca gtcatagaag 32880

ctcgggtttc attttcctca caacgtggta actgggctct ggtgtaaggg tgatgtctgg 32940

cgcatgatgt cgagcgtgcg cgcaaccttg tcataatgga gttgcttcct gacattctcg 33000

tattttgtat agcaaaacgc ggccctggca gaacacactc ttcttcgcct tctatcctgc 33060

cgcttagcgt gttccgtgtg atagttcaag tacaaccaca ctcttaagtt ggtcaaaaga 33120

atgctggctt cagttgtaat caaaactcca tcgcatctaa tcgttctgag gaaatcatcc 33180

aagcaatgca actggattgt gtttcaagca ggagaggaga gggaagagac ggaagaacca 33240

tgttaatttt tattccaaac gatctcgcag tacttcaaat tgtagatcgc gcagatggca 33300

tctctcgccc ccactgtgtt ggtgaaaaag cacagctaga tcaaaagaaa tgcgattttc 33360

aaggtgctca acggtggctt ccagcaaagc ctccacgcgc acatccaaga acaaaagaat 33420

accaaaagaa ggagcatttt ctaactcctc aatcatcata ttacattcct gcaccattcc 33480

cagataattt tcagctttcc agccttgaat tattcgtgtc agttcttgtg gtaaatccaa 33540

tccacacatt acaaacaggt cccggagggc gccctccacc accattctta aacacaccct 33600

cataatgaca aaatatcttg ctcctgtgtc acctgtagcg aattgagaat ggcaacatca 33660

attgacatgc ccttggctct aagttcttct ttaagttcta gttgtaaaaa ctctctcata 33720

ttatcaccaa actgcttagc cagaagcccc ccgggaacaa gagcagggga cgctacagtg 33780

cagtacaagc gcagacctcc ccaattggct ccagcaaaaa caagattgga ataagcatat 33840

tgggaaccgc cagtaatatc atcgaagttg ctggaaatat aatcaggcag agtttcttgt 33900

aaaaattgaa taaaagaaaa atttgccaaa aaaacattca aaacctctgg gatgcaaatg 33960

caataggtta ccgcgctgcg ctccaacatt gttagttttg aattagtctg caaaaataaa 34020

aaaaaaaaca agcgtcatat catagtagcc tgacgaacag atggataaat cagtctttcc 34080

atcacaagac aagccacagg gtctccagct cgaccctcgt aaaacctgtc atcatgatta 34140

aacaacagca ccgaaagttc ctcgcggtga ccagcatgaa taattcttga tgaagcatac 34200

aatccagaca tgttagcatc agttaacgag aaaaaacagc caacatagcc tttgggtata 34260

attatgctta atcgtaagta tagcaaagcc acccctcgcg gatacaaagt aaaaggcaca 34320

ggagaataaa aaatataatt atttctctgc tgctgttcag gcaacgtcgc ccccggtccc 34380

tctaaataca catacaaagc ctcatcagcc atggcttacc agacaaagta cagcgggcac 34440

acaaagcaca agctctaaag tgactctcca acctctccac aatatatata tacacaagcc 34500

ctaaactgac gtaatgggag taaagtgtaa aaaatcccgc caaacccaac acacaccccg 34560

aaactgcgtc accagggaaa agtacagttt cacttccgca atcccaacag gcgtaacttc 34620

ctctttctca cggtacgtga tatcccacta acttgcaacg tcattttccc acggtcgcac 34680

cgccccttt agccgttaac cccacagcca atcaccacac gatccacact ttttaaaatc 34740

acctcattta catattggca ccattccatc tataaggtat attatataga taga 34794

<210> 51
<211> 33595
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-420 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes a membrane-anchored chimeric form of the single chain Fv anti-human CD3e inserted in the region BY

<400> 51
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgta tcatcctctt 29400

cttggtagca acagctacag gtgtccactc ccaggtgcag ctgcagcagt ctggggctga 29460

actggcaaga cctggggcct cagtgaagat gtcctgcaag gcttctggct acacctttac 29520

taggtacacg atgcactggg taaaacagag gcctggacag ggtctggaat ggattggata 29580

cattaatcct agccgtggtt atactaatta caatcagaag ttcaaggaca aggccacatt 29640

gactacagac aaatcctcca gcacagccta catgcaactg agcagcctga catctgagga 29700

ctctgcagtc tattactgtg caagatatta tgatgatcat tactgccttg actactgggg 29760

ccaaggcacc actctcacag tctcctcagg tggcggtggc tcgggcggtg gtggatctgg 29820

tggcggcgga tctgatatcg tgctcactca gtctccagca atcatgtctg catctccagg 29880

ggagaaggtc accatgacct gcagtgccag ctcaagtgta agttacatga actggtacca 29940

gcagaagtca ggcacctccc ccaaaagatg gatttatgac acatccaaac tggcttctgg 30000

agtccctgct cacttcaggg gcagtgggtc tgggacctct tactctctca caatcagcgg 30060

catggaggct gaagatgctg ccacttatta ctgccagcag tggagtagta acccattcac 30120

gttcggctcg gggacaaagt tggaaataaa ccggggatcc gaacaaaaac tcatctcaga 30180

agaggatctg aatgctgtgg gccaggacac gcaggaggtc atcgtggtgc cacactcctt 30240

gcccttaag gtggtggtga tctcagccat cctggccctg gtggtgctca ccatcatctc 30300

ccttatcatc ctcatcatgc tttggcagaa gaagccacgt taagctagct tgactgactg 30360

agatacagcg taccttcagc tcacagacat gataagatac attgatgagt ttggacaaac 30420

cacaactaga atgcagtgaa aaaaatgctt tatttgtgaa atttgtgatg ctattgcttt 30480

atttgtaacc attataagct gcaataaaca agttaacaac aacaattgca ttcattttat 30540

gtttcaggtt caggggggagg tgtgggaggt tttttaaagc aagtaaaacc tctacaaatg 30600

tggtagtcgt cagctatcct gcaggaactt gtttatttga aaatcaattc acaaaatccg 30660

agtagttatt ttgcctcccc cttcccattt aacagaatac accaatctct ccccacgcac 30720

agctttaaac atttggatac cattagatat agacatggtt ttagattcca cattccaaac 30780

agtttcagag cgagccaatc tggggtcagt gatagataaa aatccatcgg gatagtcttt 30840

taaagcgctt tcacagtcca actgctgcgg atgcgactcc ggagtctgga tcacggtcat 30900

ctggaagaag aacgatggga atcataatcc gaaaacggta tcggacgatt gtgtctcatc 30960

aaacccacaa gcagccgctg tctgcgtcgc tccgtgcgac tgctgtttat gggatcaggg 31020

tccacagtgt cctgaagcat gattttaata gcccttaaca tcaactttct ggtgcgatgc 31080

gcgcagcaac gcattctgat ttcactcaaa tctttgcagt aggtacaaca cattattaca 31140

atattgttta ataaaccata attaaaagcg ctccagccaa aactcatatc tgatataatc 31200

gcccctgcat gaccatcata ccaaagttta atataaatta aatgacgttc cctcaaaaac 31260

acactaccca catacatgat ctcttttggc atgtgcatat taacaatctg tctgtaccat 31320

ggacaacgtt ggttaatcat gcaacccaat ataaccttcc ggaaccacac tgccaacacc 31380

gctccccag ccatgcattg aagtgaaccc tgctgattac aatgacaatg aagaacccaa 31440

ttctctcgac cgtgaatcac ttgagaatga aaaatatcta tagtggcaca acatagacat 31500

aaatgcatgc atcttctcat aatttttaac tcctcaggat ttagaaacat atcccaggga 31560

ataggaagct cttgcagaac agtaaagctg gcagaacaag gaagaccacg aacacaactt 31620

acactatgca tagtcatagt atcacaatct ggcaacagcg ggtggtcttc agtcatagaa 31680

gctcgggttt cattttcctc acaacgtggt aactgggctc tggtgtaagg gtgatgtctg 31740

gcgcatgatg tcgagcgtgc gcgcaacctt gtcataatgg agttgcttcc tgacattctc 31800

gtattttgta tagcaaaacg cggccctggc agaacacact cttcttcgcc ttctatcctg 31860

ccgcttagcg tgttccgtgt gatagttcaa gtacaaccac actcttaagt tggtcaaaag 31920

aatgctggct tcagttgtaa tcaaaactcc atcgcatcta atcgttctga ggaaatcatc 31980

caagcaatgc aactggattg tgtttcaagc aggagaggag agggaagaga cggaagaacc 32040

atgttaattt ttattccaaa cgatctcgca gtacttcaaa ttgtagatcg cgcagatggc 32100

atctctcgcc cccactgtgt tggtgaaaaa gcacagctag atcaaaagaa atgcgatttt 32160

caaggtgctc aacggtggct tccagcaaag cctccacgcg cacatccaag aacaaaagaa 32220

taccaaaaga aggagcattt tctaactcct caatcatcat attacattcc tgcaccattc 32280

ccagataatt ttcagctttc cagccttgaa ttattcgtgt cagttcttgt ggtaaatcca 32340

atccacacat tacaaacagg tcccggaggg cgccctccac caccattctt aaacacaccc 32400

tcataatgac aaaatatctt gctcctgtgt cacctgtagc gaattgagaa tggcaacatc 32460

aattgacatg cccttggctc taagttcttc tttaagttct agttgtaaaa actctctcat 32520

attatcacca aactgcttag ccagaagccc cccgggaaca agagcagggg acgctacagt 32580

gcagtacaag cgcagacctc cccaattggc tccagcaaaa acaagattgg aataagcata 32640

ttgggaaccg ccagtaatat catcgaagtt gctggaaata taatcaggca gagtttcttg 32700

taaaaattga ataaaagaaa aatttgccaa aaaaacattc aaaacctctg ggatgcaaat 32760

gcaataggtt accgcgctgc gctccaacat tgttagtttt gaattagtct gcaaaaataa 32820

aaaaaaaaac aagcgtcata tcatagtagc ctgacgaaca gatggataaa tcagtctttc 32880

catcacaaga caagccacag ggtctccagc tcgaccctcg taaaacctgt catcatgatt 32940

aaacaacagc accgaaagtt cctcgcggtg accagcatga ataattcttg atgaagcata 33000

caatccagac atgttagcat cagttaacga gaaaaaacag ccaacatagc ctttgggtat 33060

aattatgctt aatcgtaagt atagcaaagc cacccctcgc ggatacaaag taaaaggcac 33120

aggagaataa aaaatataat tatttctctg ctgctgttca ggcaacgtcg cccccggtcc 33180

ctctaaatac acatacaaag cctcatcagc catggcttac cagacaaagt acagcgggca 33240

cacaaagcac aagctctaaa gtgactctcc aacctctcca caatatatat atacacaagc 33300

cctaaactga cgtaatggga gtaaagtgta aaaaatcccg ccaaacccaa cacacacccc 33360

gaaactgcgt caccagggaa aagtacagtt tcacttccgc aatcccaaca ggcgtaactt 33420

cctctttctc acggtacgtg atatcccact aacttgcaac gtcattttcc cacggtcgca 33480

ccgccccttt tagccgttaa ccccacagcc aatcaccaca cgatccacac tttttaaaat 33540

cacctcattt acatattggc accattccat ctataaggta tattatatag ataga 33595

<210> 52
<211> 33628
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-420A virus genome sequence comprising the EnAd genome with a transgene cassette that encodes a membrane-anchored chimeric form of the single chain Fv anti-human CD3e and a C-terminal V5 tag, inserted in the region BY

<400> 52
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc ccctcccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgta tcatcctctt 29400

cttggtagca acagctacag gtgtccactc ccaggtgcag ctgcagcagt ctggggctga 29460

actggcaaga cctggggcct cagtgaagat gtcctgcaag gcttctggct acacctttac 29520

taggtacacg atgcactggg taaaacagag gcctggacag ggtctggaat ggattggata 29580

cattaatcct agccgtggtt atactaatta caatcagaag ttcaaggaca aggccacatt 29640

gactacagac aaatcctcca gcacagccta catgcaactg agcagcctga catctgagga 29700

ctctgcagtc tattactgtg caagatatta tgatgatcat tactgccttg actactgggg 29760

ccaaggcacc actctcacag tctcctcagg tggcggtggc tcgggcggtg gtggatctgg 29820

tggcggcgga tctgatatcg tgctcactca gtctccagca atcatgtctg catctccagg 29880

ggagaaggtc accatgacct gcagtgccag ctcaagtgta agttacatga actggtacca 29940

gcagaagtca ggcacctccc ccaaaagatg gatttatgac acatccaaac tggcttctgg 30000

agtccctgct cacttcaggg gcagtgggtc tgggacctct tactctctca caatcagcgg 30060

catggaggct gaagatgctg ccacttatta ctgccagcag tggagtagta acccattcac 30120

gttcggctcg gggacaaagt tggaaataaa ccggggatcc gaacaaaaac tcatctcaga 30180

agaggatctg aatgctgtgg gccaggacac gcaggaggtc atcgtggtgc cacactcctt 30240

gcccttaag gtggtggtga tctcagccat cctggccctg gtggtgctca ccatcatctc 30300

ccttatcatc ctcatcatgc tttggcagaa gaagccacgt ggttcaatcc ctaaccctct 30360

cctcggtctc gattaagcta gcttgactga ctgagataca gcgtaccttc agctcacaga 30420

catgataaga tacattgatg agtttggaca aaccacaact agaatgcagt gaaaaaaatg 30480

ctttatttgt gaaatttgtg atgctattgc tttatttgta accattataa gctgcaataa 30540

acaagttaac aacaacaatt gcattcattt tatgtttcag gttcaggggg aggtgtggga 30600

ggttttttaa agcaagtaaa acctctacaa atgtggtagt cgtcagctat cctgcaggaa 30660

cttgtttatt tgaaaatcaa ttcacaaaat ccgagtagtt attttgcctc ccccttccca 30720

tttaacagaa tacaccaatc tctccccacg cacagcttta aacatttgga taccattaga 30780

tatagacatg gttttagatt ccacattcca aacagtttca gagcgagcca atctggggtc 30840

agtgatagat aaaaatccat cgggatagtc ttttaaagcg ctttcacagt ccaactgctg 30900

cggatgcgac tccggagtct ggatcacggt catctggaag aagaacgatg ggaatcataa 30960

tccgaaaacg gtatcggacg attgtgtctc atcaaaccca caagcagccg ctgtctgcgt 31020

cgctccgtgc gactgctgtt tatgggatca gggtccacag tgtcctgaag catgatttta 31080

atagccctta acatcaactt tctggtgcga tgcgcgcagc aacgcattct gatttcactc 31140

aaatctttgc agtaggtaca acacattatt acaatattgt ttaataaacc ataattaaaa 31200

gcgctccagc caaaactcat atctgatata atcgcccctg catgaccatc ataccaaagt 31260

ttaatataaa ttaaatgacg ttccctcaaa aacacactac ccacatacat gatctctttt 31320

ggcatgtgca tattaacaat ctgtctgtac catggacaac gttggttaat catgcaaccc 31380

aatataacct tccggaacca cactgccaac accgctcccc cagccatgca ttgaagtgaa 31440

ccctgctgat tacaatgaca atgaagaacc caattctctc gaccgtgaat cacttgagaa 31500

tgaaaaatat ctatagtggc acaacataga cataaatgca tgcatcttct cataattttt 31560

aactcctcag gatttagaaa catatcccag ggaataggaa gctcttgcag aacagtaaag 31620

ctggcagaac aaggaagacc acgaacacaa cttacactat gcatagtcat agtatcacaa 31680

tctggcaaca gcgggtggtc ttcagtcata gaagctcggg tttcattttc ctcacaacgt 31740

ggtaactggg ctctggtgta agggtgatgt ctggcgcatg atgtcgagcg tgcgcgcaac 31800

cttgtcataa tggagttgct tcctgacatt ctcgtatttt gtatagcaaa acgcggccct 31860

ggcagaacac actcttcttc gccttctatc ctgccgctta gcgtgttccg tgtgatagtt 31920

caagtacaac cacactctta agttggtcaa aagaatgctg gcttcagttg taatcaaaac 31980

tccatcgcat ctaatcgttc tgaggaaatc atccaagcaa tgcaactgga ttgtgtttca 32040

agcaggagag gagagggaag agacggaaga accatgttaa tttttattcc aaacgatctc 32100

gcagtacttc aaattgtaga tcgcgcagat ggcatctctc gcccccactg tgttggtgaa 32160

aaagcacagc tagatcaaaa gaaatgcgat tttcaaggtg ctcaacggtg gcttccagca 32220

aagcctccac gcgcacatcc aagaacaaaa gaataccaaa agaaggagca ttttctaact 32280

cctcaatcat catattacat tcctgcacca ttcccagata attttcagct ttccagcctt 32340

gaattattcg tgtcagttct tgtggtaaat ccaatccaca cattacaaac aggtcccgga 32400

gggcgccctc caccaccatt cttaaacaca ccctcataat gacaaaatat cttgctcctg 32460

tgtcacctgt agcgaattga gaatggcaac atcaattgac atgcccttgg ctctaagttc 32520

ttctttaagt tctagttgta aaaactctct catattatca ccaaactgct tagccagaag 32580

ccccccggga acaagagcag gggacgctac agtgcagtac aagcgcagac ctccccaatt 32640

ggctccagca aaaacaagat tggaataagc atattgggaa ccgccagtaa tatcatcgaa 32700

gttgctggaa atataatcag gcagagtttc ttgtaaaaat tgaataaaag aaaaatttgc 32760

caaaaaaaca ttcaaaacct ctgggatgca aatgcaatag gttaccgcgc tgcgctccaa 32820

cattgttagt tttgaattag tctgcaaaaa taaaaaaaaa aacaagcgtc atatcatagt 32880

agcctgacga acagatggat aaatcagtct ttccatcaca agacaagcca cagggtctcc 32940

agctcgaccc tcgtaaaacc tgtcatcatg attaaacaac agcaccgaaa gttcctcgcg 33000

gtgaccagca tgaataattc ttgatgaagc atacaatcca gacatgttag catcagttaa 33060

cgagaaaaaa cagccaacat agcctttggg tataattatg cttaatcgta agtatagcaa 33120

agccaccccct cgcggataca aagtaaaagg cacaggagaa taaaaaatat aattatttct 33180

ctgctgctgt tcaggcaacg tcgcccccgg tccctctaaa tacacataca aagcctcatc 33240

agccatggct taccagacaa agtacagcgg gcacacaaag cacaagctct aaagtgactc 33300

tccaacctct ccacaatata tatatacaca agccctaaac tgacgtaatg ggagtaaagt 33360

gtaaaaaatc ccgccaaacc caacacacac cccgaaactg cgtcaccagg gaaaagtaca 33420

gtttcacttc cgcaatccca acaggcgtaa cttcctcttt ctcacggtac gtgatatccc 33480

actaacttgc aacgtcattt tcccacggtc gcaccgcccc ttttagccgt taaccccaca 33540

gccaatcacc acacgatcca cacttttaa aatcacctca tttacatatt ggcaccattc 33600

catctataag gtatattata tagataga 33628

<210> 53
<211> 34883
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-601 (EnAd-CMV-EpCAMBiTE)

<400> 53
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccagggg ctcccgccag atctagtaat caattacggg 29400

gtcattagtt catagcccat atatggagtt ccgcgttaca taacttacgg taaatggccc 29460

gcctggctga ccgcccaacg acccccgccc attgacgtca ataatgacgt atgttcccat 29520

agtaacgcca atagggactt tccattgacg tcaatgggtg gagtatttac ggtaaactgc 29580

ccacttggca gtacatcaag tgtatcatat gccaagtacg ccccctattg acgtcaatga 29640

cggtaaatgg cccgcctggc attatgccca gtacatgacc ttatgggact ttcctacttg 29700

gcagtacatc tacgtattag tcatcgctat taccatgctg atgcggtttt ggcagtacat 29760

caatgggcgt ggatagcggt ttgactcacg gggatttcca agtctccacc ccattgacgt 29820

caatgggagt ttgttttggc accaaaatca acgggacttt ccaaaatgtc gtaacaactc 29880

cgccccattg acgcaaatgg gcggtaggcg tgtacggtgg gaggtctata taagcagagc 29940

tggtttagtg aaccgtcaga tcagatcttt gtcgatccta ccatccactc gacacacccg 30000

ccagcggccg ctgccaagct tccgagctct cgaattcaaa ggaggtaccc accatgggat 30060

ggagctgcat catcctattc ctcgtggcga cggccactgg agtgcatagc gaactggtga 30120

tgactcagtc cccgtcatcc ctgacggtga ccgccggcga gaaggtcacc atgtcgtgca 30180

agtcctcgca aagcctgctt aacagcggca accagaaaaa ctacctcacg tggtatcagc 30240

aaaagccagg tcaaccccca aaactgctca tctactgggc gagcacccgc gagtcggggg 30300

tgccagaccg gttcaccggc tccgggtcag gaactgattt caccctaacc atcagctcgg 30360

tgcaagcgga ggacctggcc gtgtactact gccaaaatga ttactcgtac cctctgacct 30420

ttggagcggg caccaagctc gaaatcaagg gcggtggagg aagcggcggg ggaggctcag 30480

gtgggggagg atcagaagtc caactgctgg agcagtcagg agccgaactg gtccgcccgg 30540

gaacctccgt caagatttcc tgtaaggctt ccggctacgc ttttaccaat tactggctgg 30600

gctgggtcaa gcaaagaccg gggcatggcc tggagtggat cggcgacatc ttcccaggga 30660

gcggcaacat ccactacaac gagaagttca aggggaaagc gactctgact gccgacaaat 30720

catccagcac cgcctacatg cagctgtcgt cgctcacttt cgaagacagc gcggtgtact 30780

tttgtgctcg gctccggaac tgggatgaac caatggacta ctggggacaa ggaactaccg 30840

tgaccgtctc ctccggcggc ggtggaagcg atgtgcaact cgtgcagtcc ggtgcggaag 30900

tgaaaaagcc gggcgcgagc gtcaaagtgt catgcaaggc gtcaggatat acgtttacta 30960

gatacactat gcactgggtg cgccaggcac ctggtcaggg ccttgaatgg atcggctaca 31020

tcaatccgtc gagaggctac actaattacg cggactcagt caaagggcgc ttcacgatta 31080

cgaccgacaa gtccacctcg actgcataca tggaactgtc ctcgctgaga agcgaggaca 31140

ccgctactta ctactgcgct agatactacg atgatcacta ctgcctcgat tactggggcc 31200

agggaaccac tgtcacggtg tcatcgggag agggcacctc aaccggatca gggggatcgg 31260

gaggctcggg cggcgcagac gacatcgtcc tgacccagtc gcccgccacc ttgtcgctgt 31320

ccccaggaga aagagcgacc ctgtcatgcc gggcgtcgca aagcgtgagc tatatgaatt 31380

ggtatcagca gaagccagga aaggcgccga agagatggat ctacgacacc tccaaggtcg 31440

cttcaggtgt cccggctaga ttctcaggat cgggatcagg aacggactac tccctgacca 31500

tcaattcact ggaagcagaa gatgcggcca cctactactg tcagcagtgg tcctccaacc 31560

cgctgacttt cggaggcgga actaaggtcg agatcaagca tcaccatcac catcaccacc 31620

atcaccatta ggctagcttg actgactgag atacagcgta ccttcagctc acagacatga 31680

taagatacat tgatgagttt ggacaaacca caactagaat gcagtgaaaa aaatgcttta 31740

tttgtgaaat ttgtgatgct attgctttat ttgtaaccat tataagctgc aataaacaag 31800

ttaacaacaa caattgcatt cattttatgt ttcaggttca gggggaggtg tgggaggttt 31860

tttaaagcaa gtaaaacctc tacaaatgtg gtagtcgtca gctatcctgc aggaacttgt 31920

ttatttgaaa atcaattcac aaaatccgag tagttatttt gcctcccccc tcccatttaa 31980

cagaatacac caatctctcc ccacgcacag ctttaaacat ttggatacca ttagatatag 32040

acatggtttt agattccaca ttccaaacag tttcagagcg agccaatctg gggtcagtga 32100

tagataaaaa tccatcggga tagtctttta aagcgctttc acagtccaac tgctgcggat 32160

gcgactccgg agtctggatc acggtcatct ggaagaagaa cgatgggaat cataatccga 32220

aaacggtatc ggacgattgt gtctcatcaa acccacaagc agccgctgtc tgcgtcgctc 32280

cgtgcgactg ctgtttatgg gatcagggtc cacagtgtcc tgaagcatga ttttaatagc 32340

ccttaacatc aactttctgg tgcgatgcgc gcagcaacgc attctgattt cactcaaatc 32400

tttgcagtag gtacaacaca ttattacaat attgtttaat aaaccataat taaaagcgct 32460

ccagccaaaa ctcatatctg atataatcgc ccctgcatga ccatcatacc aaagtttaat 32520

ataaattaaa tgacgttccc tcaaaaacac actacccaca tacatgatct cttttggcat 32580

gtgcatatta acaatctgtc tgtaccatgg acaacgttgg ttaatcatgc aacccaatat 32640

aaccttccgg aaccacactg ccaacaccgc tcccccagcc atgcattgaa gtgaaccctg 32700

ctgattacaa tgacaatgaa gaacccaatt ctctcgaccg tgaatcactt gagaatgaaa 32760

aatatctata gtggcacaac atagacataa atgcatgcat cttctcataa tttttaactc 32820

ctcaggattt agaaacatat cccagggaat aggaagctct tgcagaacag taaagctggc 32880

agaacaagga agaccacgaa cacaacttac actatgcata gtcatagtat cacaatctgg 32940

caacagcggg tggtcttcag tcatagaagc tcgggtttca ttttcctcac aacgtggtaa 33000

ctgggctctg gtgtaagggt gatgtctggc gcatgatgtc gagcgtgcgc gcaaccttgt 33060

cataatggag ttgcttcctg acattctcgt attttgtata gcaaaacgcg gccctggcag 33120

aacacactct tcttcgcctt ctatcctgcc gcttagcgtg ttccgtgtga tagttcaagt 33180

acaaccacac tcttaagttg gtcaaaagaa tgctggcttc agttgtaatc aaaactccat 33240

cgcatctaat cgttctgagg aaatcatcca agcaatgcaa ctggattgtg tttcaagcag 33300

gagaggagag ggaagagacg gaagaaccat gttaattttt attccaaacg atctcgcagt 33360

acttcaaatt gtagatcgcg cagatggcat ctctcgcccc cactgtgttg gtgaaaaagc 33420

acagctagat caaaagaaat gcgattttca aggtgctcaa cggtggcttc cagcaaagcc 33480

tccacgcgca catccaagaa caaaagaata ccaaaagaag gagcattttc taactcctca 33540

atcatcatat tacattcctg caccattccc agataatttt cagctttcca gccttgaatt 33600

attcgtgtca gttcttgtgg taaatccaat ccacacatta caaacaggtc ccggagggcg 33660

ccctccacca ccattcttaa acacaccctc ataatgacaa aatatcttgc tcctgtgtca 33720

cctgtagcga attgagaatg gcaacatcaa ttgacatgcc cttggctcta agttcttctt 33780

taagttctag ttgtaaaaac tctctcatat tatcaccaaa ctgcttagcc agaagccccc 33840

cgggaacaag agcaggggac gctacagtgc agtacaagcg cagacctccc caattggctc 33900

cagcaaaaac aagattggaa taagcatatt gggaaccgcc agtaatatca tcgaagttgc 33960

tggaaatata atcaggcaga gtttcttgta aaaattgaat aaaagaaaaa tttgccaaaa 34020

aaacattcaa aacctctggg atgcaaatgc aataggttac cgcgctgcgc tccaacattg 34080

ttagttttga attagtctgc aaaaataaaa aaaaaaacaa gcgtcatatc atagtagcct 34140

gacgaacaga tggataaatc agtctttcca tcacaagaca agccacaggg tctccagctc 34200

gaccctcgta aaacctgtca tcatgattaa acaacagcac cgaaagttcc tcgcggtgac 34260

cagcatgaat aattcttgat gaagcataca atccagacat gttagcatca gttaacgaga 34320

aaaaacagcc aacatagcct ttgggtataa ttatgcttaa tcgtaagtat agcaaagcca 34380

cccctcgcgg atacaaagta aaaggcacag gagaataaaa aatataatta tttctctgct 34440

gctgttcagg caacgtcgcc cccggtccct ctaaatacac atacaaagcc tcatcagcca 34500

tggcttacca gacaaagtac agcgggcaca caaagcacaa gctctaaagt gactctccaa 34560

cctctccaca atatatatat acacaagccc taaactgacg taatgggagt aaagtgtaaa 34620

aaatcccgcc aaacccaaca cacaccccga aactgcgtca ccagggaaaa gtacagtttc 34680

acttccgcaa tcccaacagg cgtaacttcc tctttctcac ggtacgtgat atcccactaa 34740

cttgcaacgt cattttccca cggtcgcacc gcccctttta gccgttaacc ccacagccaa 34800

tcaccacacg atccacactt tttaaaatca cctcatttac atattggcac cattccatct 34860

ataaggtata ttatatagat aga 34883

<210> 54
<211> 34204
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-602 (EnAd-SA-EpCAMBiTE)

<400> 54
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgca tcatcctatt 29400

cctcgtggcg acggccactg gagtgcatag cgaactggtg atgactcagt ccccgtcatc 29460

cctgacggtg accgccggcg agaaggtcac catgtcgtgc aagtcctcgc aaagcctgct 29520

taacagcggc aaccagaaaa actacctcac gtggtatcag caaaagccag gtcaaccccc 29580

aaaactgctc atctactggg cgagcacccg cgagtcgggg gtgccagacc ggttcaccgg 29640

ctccgggtca ggaactgatt tcaccctaac catcagctcg gtgcaagcgg aggacctggc 29700

cgtgtactac tgccaaaatg attactcgta ccctctgacc tttggagcgg gcaccaagct 29760

cgaaatcaag ggcggtggag gaagcggcgg gggaggctca ggtgggggag gatcagaagt 29820

ccaactgctg gagcagtcag gagccgaact ggtccgcccg ggaacctccg tcaagatttc 29880

ctgtaaggct tccggctacg cttttaccaa ttactggctg ggctgggtca agcaaagacc 29940

ggggcatggc ctggagtgga tcggcgacat cttcccaggg agcggcaaca tccactacaa 30000

cgagaagttc aaggggaaag cgactctgac tgccgacaaa tcatccagca ccgcctacat 30060

gcagctgtcg tcgctcactt tcgaagacag cgcggtgtac ttttgtgctc ggctccggaa 30120

ctgggatgaa ccaatggact actggggaca aggaactacc gtgaccgtct cctccggcgg 30180

cggtggaagc gatgtgcaac tcgtgcagtc cggtgcggaa gtgaaaaagc cgggcgcgag 30240

cgtcaaagtg tcatgcaagg cgtcaggata tacgtttact agatacacta tgcactgggt 30300

gcgccaggca cctggtcagg gccttgaatg gatcggctac atcaatccgt cgagaggcta 30360

cactaattac gcggactcag tcaaagggcg cttcacgatt acgaccgaca agtccacctc 30420

gactgcatac atggaactgt cctcgctgag aagcgaggac accgctactt actactgcgc 30480

tagatactac gatgatcact actgcctcga ttactggggc cagggaacca ctgtcacggt 30540

gtcatcggga gagggcacct caaccggatc agggggatcg ggaggctcgg gcggcgcaga 30600

cgacatcgtc ctgacccagt cgcccgccac cttgtcgctg tccccaggag aaagagcgac 30660

cctgtcatgc cgggcgtcgc aaagcgtgag ctatatgaat tggtatcagc agaagccagg 30720

aaaggcgccg aagagatgga tctacgacac ctccaaggtc gcttcaggtg tcccggctag 30780

attctcagga tcgggatcag gaacggacta ctccctgacc atcaattcac tggaagcaga 30840

agatgcggcc acctactact gtcagcagtg gtcctccaac ccgctgactt tcggaggcgg 30900

aactaaggtc gagatcaagc atcaccatca ccatcaccac catcaccatt aggctagctt 30960

gactgactga gatacagcgt accttcagct cacagacatg ataagataca ttgatgagtt 31020

tggacaaacc acaactagaa tgcagtgaaa aaaatgcttt atttgtgaaa tttgtgatgc 31080

tattgcttta tttgtaacca ttataagctg caataaacaa gttaacaaca acaattgcat 31140

tcattttatg tttcaggttc agggggaggt gtgggaggtt ttttaaagca agtaaaacct 31200

ctacaaatgt ggtagtcgtc agctatcctg caggaacttg tttatttgaa aatcaattca 31260

caaaatccga gtagttattt tgcctccccc ttcccattta acagaataca ccaatctctc 31320

cccacgcaca gctttaaaca tttggatacc attagatata gacatggttt tagattccac 31380

attccaaaca gtttcagagc gagccaatct ggggtcagtg atagataaaa atccatcggg 31440

atagtctttt aaagcgcttt cacagtccaa ctgctgcgga tgcgactccg gagtctggat 31500

cacggtcatc tggaagaaga acgatgggaa tcataatccg aaaacggtat cggacgattg 31560

tgtctcatca aacccacaag cagccgctgt ctgcgtcgct ccgtgcgact gctgtttatg 31620

ggatcagggt ccacagtgtc ctgaagcatg attttaatag cccttaacat caactttctg 31680

gtgcgatgcg cgcagcaacg cattctgatt tcactcaaat ctttgcagta ggtacaacac 31740

attattacaa tattgtttaa taaaccataa ttaaaagcgc tccagccaaa actcatatct 31800

gatataatcg cccctgcatg accatcatac caaagtttaa tataaattaa atgacgttcc 31860

ctcaaaaaca cactacccac atacatgatc tcttttggca tgtgcatatt aacaatctgt 31920

ctgtaccatg gacaacgttg gttaatcatg caacccaata taaccttccg gaaccacact 31980

gccaacaccg ctccccccagc catgcattga agtgaaccct gctgattaca atgacaatga 32040

agaacccaat tctctcgacc gtgaatcact tgagaatgaa aaatatctat agtggcacaa 32100

catagacata aatgcatgca tcttctcata atttttaact cctcaggatt tagaaacata 32160

tcccagggaa taggaagctc ttgcagaaca gtaaagctgg cagaacaagg aagaccacga 32220

acacaactta cactatgcat agtcatagta tcacaatctg gcaacagcgg gtggtcttca 32280

gtcatagaag ctcgggtttc attttcctca caacgtggta actgggctct ggtgtaaggg 32340

tgatgtctgg cgcatgatgt cgagcgtgcg cgcaaccttg tcataatgga gttgcttcct 32400

gacattctcg tattttgtat agcaaaacgc ggccctggca gaacacactc ttcttcgcct 32460

tctatcctgc cgcttagcgt gttccgtgtg atagttcaag tacaaccaca ctcttaagtt 32520

ggtcaaaaga atgctggctt cagttgtaat caaaactcca tcgcatctaa tcgttctgag 32580

gaaatcatcc aagcaatgca actggattgt gtttcaagca ggagaggaga gggaagagac 32640

ggaagaacca tgttaatttt tattccaaac gatctcgcag tacttcaaat tgtagatcgc 32700

gcagatggca tctctcgccc ccactgtgtt ggtgaaaaag cacagctaga tcaaaagaaa 32760

tgcgattttc aaggtgctca acggtggctt ccagcaaagc ctccacgcgc acatccaaga 32820

acaaaagaat accaaaagaa ggagcatttt ctaactcctc aatcatcata ttacattcct 32880

gcaccattcc cagataattt tcagctttcc agccttgaat tattcgtgtc agttcttgtg 32940

gtaaatccaa tccacacatt acaaacaggt cccggagggc gccctccacc accattctta 33000

aacacaccct cataatgaca aaatatcttg ctcctgtgtc acctgtagcg aattgagaat 33060

ggcaacatca attgacatgc ccttggctct aagttcttct ttaagttcta gttgtaaaaa 33120

ctctctcata ttatcaccaa actgcttagc cagaagcccc ccgggaacaa gagcagggga 33180

cgctacagtg cagtacaagc gcagacctcc ccaattggct ccagcaaaaa caagattgga 33240

ataagcatat tgggaaccgc cagtaatatc atcgaagttg ctggaaatat aatcaggcag 33300

agtttcttgt aaaaattgaa taaaagaaaa atttgccaaa aaaacattca aaacctctgg 33360

gatgcaaatg caataggtta ccgcgctgcg ctccaacatt gttagttttg aattagtctg 33420

caaaaataaa aaaaaaaaca agcgtcatat catagtagcc tgacgaacag atggataaat 33480

cagtctttcc atcacaagac aagccacagg gtctccagct cgaccctcgt aaaacctgtc 33540

atcatgatta aacaacagca ccgaaagttc ctcgcggtga ccagcatgaa taattcttga 33600

tgaagcatac aatccagaca tgttagcatc agttaacgag aaaaaacagc caacatagcc 33660

tttgggtata attatgctta atcgtaagta tagcaaagcc acccctcgcg gatacaaagt 33720

aaaaggcaca ggagaataaa aaatataatt atttctctgc tgctgttcag gcaacgtcgc 33780

ccccggtccc tctaaataca catacaaagc ctcatcagcc atggcttacc agacaaagta 33840

cagcgggcac acaaagcaca agctctaaag tgactctcca acctctccac aatatatata 33900

tacacaagcc ctaaactgac gtaatgggag taaagtgtaa aaaatcccgc caaacccaac 33960

acacaccccg aaactgcgtc accagggaaa agtacagttt cacttccgca atcccaacag 34020

gcgtaacttc ctctttctca cggtacgtga tatcccacta acttgcaacg tcattttccc 34080

acggtcgcac cgccccttt agccgttaac cccacagcca atcaccacac gatccacact 34140

ttttaaaatc acctcattta catattggca ccattccatc tataaggtat attatataga 34200

taga 34204

<210> 55
<211> 34895

<212> DNA
<213> Artificial Sequence

<220>
<223> NG-605 (EnAd-CMV-FAPBiTE)

<400> 55
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccagggg ctcccgccag atctagtaat caattacggg 29400

gtcattagtt catagcccat atatggagtt ccgcgttaca taacttacgg taaatggccc 29460

gcctggctga ccgcccaacg acccccgccc attgacgtca ataatgacgt atgttcccat 29520

agtaacgcca atagggactt tccattgacg tcaatgggtg gagtatttac ggtaaactgc 29580

ccacttggca gtacatcaag tgtatcatat gccaagtacg ccccctattg acgtcaatga 29640

cggtaaatgg cccgcctggc attatgccca gtacatgacc ttatgggact ttcctacttg 29700

gcagtacatc tacgtattag tcatcgctat taccatgctg atgcggtttt ggcagtacat 29760

caatgggcgt ggatagcggt ttgactcacg gggatttcca agtctccacc ccattgacgt 29820

caatgggagt ttgttttggc accaaaatca acgggacttt ccaaaatgtc gtaacaactc 29880

cgccccattg acgcaaatgg gcggtaggcg tgtacggtgg gaggtctata taagcagagc 29940

tggtttagtg aaccgtcaga tcagatcttt gtcgatccta ccatccactc gacacacccg 30000

ccagcggccg ctgccaagct tccgagctct cgaattcaaa ggaggtaccc accatgggct 30060

ggagctgcat catcttgttc ctggtcgcaa ctgctaccgg agtccattcg gacatcgtca 30120

tgacccaaag ccctgactcg ctcgctgtgt cactgggaga gcgggcgact atcaactgca 30180

aatcatccca gagcctgctg tattcacgca atcagaaaaa ctacctggcc tggtatcagc 30240

agaagccggg ccagcctccc aagctgctga tcttctgggc ctccacccgc gaaagcggcg 30300

tgccggaccg cttcagcgga agcggattcg gaactgactt tactctgacc attagctcct 30360

tgcaggcgga ggacgtggcc gtctactact gccagcagta tttctcctat ccgctcacct 30420

ttgggcaagg caccaaggtg gagattaagg gagggggcgg cagcgggggа ggcggcagcg 30480

gcggcggggg atcgcaggtc cagctcgtcc aatccggagc cgaagtcaag aagccgggag 30540

cgtcggtcaa ggtcagctgc aaaacttcgc gctacacctt cactgagtac acgatccact 30600

gggtccgcca ggcgcccggc cagcggctgg agtggatcgg cgggatcaac ccaaacaacg 30660

gaatcccaaa ttacaatcag aaatttaaag ggcgggtgac tatcaccgtg gatacctcgg 30720

cctccacggc gtacatggag ctctcatcac tcagatcgga ggacaccgcg gtctattact 30780

gcgcccgccg ccggatcgct tatggatacg atgaaggaca tgcgatggat tactggggcc 30840

agggcaccct cgtcacggtg tcgtcaggag gcggcggttc agatgtgcaa ctcgtgcagt 30900

ccggtgcgga agtgaaaaag ccgggcgcga gcgtcaaagt gtcatgcaag gcgtcaggat 30960

atacgtttac tagatacact atgcactggg tgcgccaggc acctggtcag ggccttgaat 31020

ggatcggcta catcaatccg tcgagaggct acactaatta cgcggactca gtcaaagggc 31080

gcttcacgat tacgaccgac aagtccacct cgactgcata catggaactg tcctcgctga 31140

gaagcgagga caccgctact tactactgcg ctagatacta cgatgatcac tactgcctcg 31200

attactgggg ccagggaacc actgtcacgg tgtcatcggg agagggcacc tcaaccggat 31260

caggggggatc gggaggctcg ggcggcgcag acgacatcgt cctgacccag tcgcccgcca 31320

ccttgtcgct gtccccagga gaaagagcga ccctgtcatg ccgggcgtcg caaagcgtga 31380

gctatatgaa ttggtatcag cagaagccag gaaaggcgcc gaagagatgg atctacgaca 31440

cctccaaggt cgcttcaggt gtcccggcta gattctcagg atcgggatca ggaacggact 31500

actccctgac catcaattca ctggaagcag aagatgcggc cacctactac tgtcagcagt 31560

ggtcctccaa cccgctgact ttcggaggcg gaactaaggt cgagatcaag catcaccatc 31620

accatcacca ccatcaccat taggctagct tgactgactg agatacagcg taccttcagc 31680

tcacagacat gataagatac attgatgagt ttggacaaac cacaactaga atgcagtgaa 31740

aaaaatgctt tatttgtgaa atttgtgatg ctattgcttt atttgtaacc attataagct 31800

gcaataaaca agttaacaac aacaattgca ttcattttat gtttcaggtt cagggggagg 31860

tgtgggaggt tttttaaagc aagtaaaacc tctacaaatg tggtagtcgt cagctatcct 31920

gcaggaactt gtttatttga aaatcaattc acaaaatccg agtagttatt ttgcctcccc 31980

cttcccattt aacagaatac accaatctct ccccacgcac agctttaaac atttggatac 32040

cattagatat agacatggtt ttagattcca cattccaaac agtttcagag cgagccaatc 32100

tggggtcagt gatagataaa aatccatcgg gatagtcttt taaagcgctt tcacagtcca 32160

actgctgcgg atgcgactcc ggagtctgga tcacggtcat ctggaagaag aacgatggga 32220

atcataatcc gaaaacggta tcggacgatt gtgtctcatc aaacccacaa gcagccgctg 32280

tctgcgtcgc tccgtgcgac tgctgtttat gggatcaggg tccacagtgt cctgaagcat 32340

gattttaata gcccttaaca tcaactttct ggtgcgatgc gcgcagcaac gcattctgat 32400

ttcactcaaa tctttgcagt aggtacaaca cattattaca atattgttta ataaaccata 32460

attaaaagcg ctccagccaa aactcatatc tgatataatc gcccctgcat gaccatcata 32520

ccaaagttta atataaatta aatgacgttc cctcaaaaac acactaccca catacatgat 32580

ctcttttggc atgtgcatat taacaatctg tctgtaccat ggacaacgtt ggttaatcat 32640

gcaacccaat ataaccttcc ggaaccacac tgccaacacc gctcccccag ccatgcattg 32700

aagtgaaccc tgctgattac aatgacaatg aagaacccaa ttctctcgac cgtgaatcac 32760

ttgagaatga aaaatatcta tagtggcaca acatagacat aaatgcatgc atcttctcat 32820

aatttttaac tcctcaggat ttagaaacat atcccaggga ataggaagct cttgcagaac 32880

agtaaagctg gcagaacaag gaagaccacg aacacaactt acactatgca tagtcatagt 32940

atcacaatct ggcaacagcg ggtggtcttc agtcatagaa gctcgggttt cattttcctc 33000

acaacgtggt aactgggctc tggtgtaagg gtgatgtctg gcgcatgatg tcgagcgtgc 33060

gcgcaacctt gtcataatgg agttgcttcc tgacattctc gtattttgta tagcaaaacg 33120

cggccctggc agaacacact cttcttcgcc ttctatcctg ccgcttagcg tgttccgtgt 33180

gatagttcaa gtacaaccac actcttaagt tggtcaaaag aatgctggct tcagttgtaa 33240

tcaaaactcc atcgcatcta atcgttctga ggaaatcatc caagcaatgc aactggattg 33300

tgtttcaagc aggagaggag agggaagaga cggaagaacc atgttaattt ttattccaaa 33360

cgatctcgca gtacttcaaa ttgtagatcg cgcagatggc atctctcgcc cccactgtgt 33420

tggtgaaaaa gcacagctag atcaaaagaa atgcgatttt caaggtgctc aacggtggct 33480

tccagcaaag cctccacgcg cacatccaag aacaaaagaa taccaaaaga aggagcattt 33540

tctaactcct caatcatcat attacattcc tgcaccattc ccagataatt ttcagctttc 33600

cagccttgaa ttattcgtgt cagttcttgt ggtaaatcca atccacacat tacaaacagg 33660

tcccggaggg cgccctccac caccattctt aaacacaccc tcataatgac aaaatatctt 33720

gctcctgtgt cacctgtagc gaattgagaa tggcaacatc aattgacatg cccttggctc 33780

taagttcttc tttaagttct agttgtaaaa actctctcat attatcacca aactgcttag 33840

ccagaagccc cccgggaaca agagcagggg acgctacagt gcagtacaag cgcagacctc 33900

cccaattggc tccagcaaaa acaagattgg aataagcata ttgggaaccg ccagtaatat 33960

catcgaagtt gctggaaata taatcaggca gagtttcttg taaaaattga ataaaagaaa 34020

aatttgccaa aaaaacattc aaaacctctg ggatgcaaat gcaataggtt accgcgctgc 34080

gctccaacat tgttagtttt gaattagtct gcaaaaataa aaaaaaaaac aagcgtcata 34140

tcatagtagc ctgacgaaca gatggataaa tcagtctttc catcacaaga caagccacag 34200

ggtctccagc tcgaccctcg taaaacctgt catcatgatt aaacaacagc accgaaagtt 34260

cctcgcggtg accagcatga ataattcttg atgaagcata caatccagac atgttagcat 34320

cagttaacga gaaaaaacag ccaacatagc ctttgggtat aattatgctt aatcgtaagt 34380

atagcaaagc cacccctcgc ggatacaaag taaaaggcac aggagaataa aaaatataat 34440

tatttctctg ctgctgttca ggcaacgtcg cccccggtcc ctctaaatac acatacaaag 34500

cctcatcagc catggcttac cagacaaagt acagcgggca cacaaagcac aagctctaaa 34560

gtgactctcc aacctctcca caatatatat atacacaagc cctaaactga cgtaatggga 34620

gtaaagtgta aaaaatcccg ccaaacccaa cacacacccc gaaactgcgt caccagggaa 34680

aagtacagtt tcacttccgc aatcccaaca ggcgtaactt cctctttctc acggtacgtg 34740

atatcccact aacttgcaac gtcattttcc cacggtcgca ccgccccttt tagccgttaa 34800

ccccacagcc aatcaccaca cgatccacac tttttaaaat cacctcattt acatattggc 34860

accattccat ctataaggta tattatatag ataga 34895

<210> 56
<211> 34216
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-606 (EnAd-SA-FAPBiTE)

<400> 56
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc tggagctgca tcatcttgtt 29400

cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa gccctgactc 29460

gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc agagcctgct 29520

gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg gccagcctcc 29580

caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc gcttcagcgg 29640

aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg aggacgtggc 29700

cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag gcaccaaggt 29760

ggagattaag ggagggggcg gcagcggggg aggcggcagc ggcggcgggg gatcgcaggt 29820

ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca aggtcagctg 29880

caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc aggcgcccgg 29940

ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa attacaatca 30000

gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg cgtacatgga 30060

gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc gccggatcgc 30120

ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc tcgtcacggt 30180

gtcgtcagga ggcggcggtt cagatgtgca actcgtgcag tccggtgcgg aagtgaaaaa 30240

gccgggcgcg agcgtcaaag tgtcatgcaa ggcgtcagga tatacgttta ctagatacac 30300

tatgcactgg gtgcgccagg cacctggtca gggccttgaa tggatcggct acatcaatcc 30360

gtcgagaggc tacactaatt acgcggactc agtcaaaggg cgcttcacga ttacgaccga 30420

caagtccacc tcgactgcat acatggaact gtcctcgctg agaagcgagg acaccgctac 30480

ttactactgc gctagatact acgatgatca ctactgcctc gattactggg gccagggaac 30540

cactgtcacg gtgtcatcgg gagagggcac ctcaaccgga tcaggggggat cgggaggctc 30600

gggcggcgca gacgacatcg tcctgaccca gtcgcccgcc accttgtcgc tgtccccagg 30660

agaaagagcg accctgtcat gccgggcgtc gcaaagcgtg agctatatga attggtatca 30720

gcagaagcca ggaaaggcgc cgaagagatg gatctacgac acctccaagg tcgcttcagg 30780

tgtcccggct agattctcag gatcgggatc aggaacggac tactccctga ccatcaattc 30840

actggaagca gaagatgcgg ccacctacta ctgtcagcag tggtcctcca acccgctgac 30900

tttcggaggc ggaactaagg tcgagatcaa gcatcaccat caccatcacc accatcacca 30960

ttaggctagc ttgactgact gagatacagc gtaccttcag ctcacagaca tgataagata 31020

cattgatgag tttggacaaa ccacaactag aatgcagtga aaaaaatgct ttatttgtga 31080

aatttgtgat gctattgctt tatttgtaac cattataagc tgcaataaac aagttaacaa 31140

caacaattgc attcatttta tgtttcaggt tcaggggggag gtgtgggagg ttttttaaag 31200

caagtaaaac ctctacaaat gtggtagtcg tcagctatcc tgcaggaact tgtttatttg 31260

aaaatcaatt cacaaaatcc gagtagttat tttgcctccc ccttcccatt taacagaata 31320

caccaatctc tccccacgca cagctttaaa catttggata ccattagata tagacatggt 31380

tttagattcc acattccaaa cagtttcaga gcgagccaat ctggggtcag tgatagataa 31440

aaatccatcg ggatagtctt ttaaagcgct ttcacagtcc aactgctgcg gatgcgactc 31500

cggagtctgg atcacggtca tctggaagaa gaacgatggg aatcataatc cgaaaacggt 31560

atcggacgat tgtgtctcat caaacccaca agcagccgct gtctgcgtcg ctccgtgcga 31620

ctgctgttta tgggatcagg gtccacagtg tcctgaagca tgattttaat agcccttaac 31680

atcaactttc tggtgcgatg cgcgcagcaa cgcattctga tttcactcaa atctttgcag 31740

taggtacaac acattattac aatattgttt aataaaccat aattaaaagc gctccagcca 31800

aaactcatat ctgatataat cgcccctgca tgaccatcat accaaagttt aatataaatt 31860

aaatgacgtt ccctcaaaaa cacactaccc acatacatga tctcttttgg catgtgcata 31920

ttaacaatct gtctgtacca tggacaacgt tggttaatca tgcaacccaa tataaccttc 31980

cggaaccaca ctgccaacac cgctccccca gccatgcatt gaagtgaacc ctgctgatta 32040

caatgacaat gaagaaccca attctctcga ccgtgaatca cttgagaatg aaaaatatct 32100

atagtggcac aacatagaca taaatgcatg catcttctca taatttttaa ctcctcagga 32160

tttagaaaca tatcccaggg aataggaagc tcttgcagaa cagtaaagct ggcagaacaa 32220

ggaagaccac gaacacaact tacactatgc atagtcatag tatcacaatc tggcaacagc 32280

gggtggtctt cagtcataga agctcgggtt tcattttcct cacaacgtgg taactgggct 32340

ctggtgtaag ggtgatgtct ggcgcatgat gtcgagcgtg cgcgcaacct tgtcataatg 32400

gagttgcttc ctgacattct cgtattttgt atagcaaaac gcggccctgg cagaacacac 32460

tcttcttcgc cttctatcct gccgcttagc gtgttccgtg tgatagttca agtacaacca 32520

cactcttaag ttggtcaaaa gaatgctggc ttcagttgta atcaaaactc catcgcatct 32580

aatcgttctg aggaaatcat ccaagcaatg caactggatt gtgtttcaag caggagagga 32640

gagggaagag acggaagaac catgttaatt tttattccaa acgatctcgc agtacttcaa 32700

attgtagatc gcgcagatgg catctctcgc ccccactgtg ttggtgaaaa agcacagcta 32760

gatcaaaaga aatgcgattt tcaaggtgct caacggtggc ttccagcaaa gcctccacgc 32820

gcacatccaa gaacaaaaga ataccaaaag aaggagcatt ttctaactcc tcaatcatca 32880

tattacattc ctgcaccatt cccagataat tttcagcttt ccagccttga attattcgtg 32940

tcagttcttg tggtaaatcc aatccacaca ttacaaacag gtcccggagg gcgccctcca 33000

ccaccattct taaacacacc ctcataatga caaaatatct tgctcctgtg tcacctgtag 33060

cgaattgaga atggcaacat caattgacat gcccttggct ctaagttctt ctttaagttc 33120

tagttgtaaa aactctctca tattatcacc aaactgctta gccagaagcc ccccgggaac 33180

aagagcaggg gacgctacag tgcagtacaa gcgcagacct ccccaattgg ctccagcaaa 33240

aacaagattg gaataagcat attgggaacc gccagtaata tcatcgaagt tgctggaaat 33300

ataatcaggc agagtttctt gtaaaaattg aataaaagaa aaatttgcca aaaaaacatt 33360

caaaacctct gggatgcaaa tgcaataggt taccgcgctg cgctccaaca ttgttagttt 33420

tgaattagtc tgcaaaaata aaaaaaaaaa caagcgtcat atcatagtag cctgacgaac 33480

agatggataa atcagtcttt ccatcacaag acaagccaca gggtctccag ctcgaccctc 33540

gtaaaacctg tcatcatgat taaacaacag caccgaaagt tcctcgcggt gaccagcatg 33600

aataattctt gatgaagcat acaatccaga catgttagca tcagttaacg agaaaaaaca 33660

gccaacatag cctttgggta taattatgct taatcgtaag tatagcaaag ccacccctcg 33720

cggatacaaa gtaaaaggca caggagaata aaaaatataa ttatttctct gctgctgttc 33780

aggcaacgtc gcccccggtc cctctaaata cacatacaaa gcctcatcag ccatggctta 33840

ccagacaaag tacagcgggc acacaaagca caagctctaa agtgactctc caacctctcc 33900

acaatatata tatacacaag ccctaaactg acgtaatggg agtaaagtgt aaaaaatccc 33960

gccaaaccca acacacaccc cgaaactgcg tcaccaggga aaagtacagt ttcacttccg 34020

caatcccaac aggcgtaact tcctctttct cacggtacgt gatatcccac taacttgcaa 34080

cgtcattttc ccacggtcgc accgcccctt ttagccgtta accccacagc caatcaccac 34140

acgatccaca ctttttaaaa tcacctcatt tacatattgg caccattcca tctataaggt 34200

atattatata gataga 34216

<210> 57
<211> 34198
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-611 Genome

<400> 57
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatggga tggagctgca tcatcctatt 29400

cctcgtggcg acggccactg gagtgcatag cgaactggtg atgactcagt ccccgtcatc 29460

cctgacggtg accgccggcg agaaggtcac catgtcgtgc aagtcctcgc aaagcctgct 29520

taacagcggc aaccagaaaa actacctcac gtggtatcag caaaagccag gtcaaccccc 29580

aaaactgctc atctactggg cgagcacccg cgagtcgggg gtgccagacc ggttcaccgg 29640

ctccgggtca ggaactgatt tcaccctaac catcagctcg gtgcaagcgg aggacctggc 29700

cgtgtactac tgccaaaatg attactcgta ccctctgacc tttggagcgg gcaccaagct 29760

cgaaatcaag ggcggtggag gaagcggcgg gggaggctca ggtgggggag gatcagaagt 29820

ccaactgctg gagcagtcag gagccgaact ggtccgcccg ggaacctccg tcaagatttc 29880

ctgtaaggct tccggctacg cttttaccaa ttactggctg ggctgggtca agcaaagacc 29940

ggggcatggc ctggagtgga tcggcgacat cttcccaggg agcggcaaca tccactacaa 30000

cgagaagttc aaggggaaag cgactctgac tgccgacaaa tcatccagca ccgcctacat 30060

gcagctgtcg tcgctcactt tcgaagacag cgcggtgtac ttttgtgctc ggctccggaa 30120

ctgggatgaa ccaatggact actggggaca aggaactacc gtgaccgtct cctccggcgg 30180

cggtggaagc caggtgcagc tgcagcagtc tggggctgaa ctggcaagac ctggggcctc 30240

agtgaagatg tcctgcaagg cttctggcta cacctttact aggtacacga tgcactgggt 30300

aaaacagagg cctggacagg gtctggaatg gattggatac attaatccta gccgtggtta 30360

tactaattac aatcagaagt tcaaggacaa ggccacattg actacagaca aatcctccag 30420

cacagcctac atgcaactga gcagcctgac atctgaggac tctgcagtct attactgtgc 30480

aagatattat gatgatcatt actgccttga ctactggggc caaggcacca ctctcacagt 30540

ctcctcaggt ggcggtggct cgggcggtgg tggatctggt ggcggcggat ctgatatcgt 30600

gctcactcag tctccagcaa tcatgtctgc atctccaggg gagaaggtca ccatgacctg 30660

cagtgccagc tcaagtgtaa gttacatgaa ctggtaccag cagaagtcag gcacctcccc 30720

caaaagatgg atttatgaca catccaaact ggcttctgga gtccctgctc acttcagggg 30780

cagtgggtct gggacctctt actctctcac aatcagcggc atggaggctg aagatgctgc 30840

cacttattac tgccagcagt ggagtagtaa cccattcacg ttcggctcgg ggacaaagtt 30900

ggaaataaac cggcatcacc atcaccatca ccaccatcac cattaggcta gcttgactga 30960

ctgagataca gcgtaccttc agctcacaga catgataaga tacattgatg agtttggaca 31020

aaccacaact agaatgcagt gaaaaaaatg ctttatttgt gaaatttgtg atgctattgc 31080

tttatttgta accattataa gctgcaataa acaagttaac aacaacaatt gcattcattt 31140

tatgtttcag gttcaggggg aggtgtggga ggtttttaa agcaagtaaa acctctacaa 31200

atgtggtagt cgtcagctat cctgcaggaa cttgtttatt tgaaaatcaa ttcacaaaat 31260

ccgagtagtt attttgcctc ccccttccca tttaacagaa tacaccaatc tctccccacg 31320

cacagcttta aacatttgga taccattaga tatagacatg gttttagatt ccacattcca 31380

aacagtttca gagcgagcca atctggggtc agtgatagat aaaaatccat cgggatagtc 31440

ttttaaagcg ctttcacagt ccaactgctg cggatgcgac tccggagtct ggatcacggt 31500

catctggaag aagaacgatg ggaatcataa tccgaaaacg gtatcggacg attgtgtctc 31560

atcaaaccca caagcagccg ctgtctgcgt cgctccgtgc gactgctgtt tatgggatca 31620

gggtccacag tgtcctgaag catgatttta atagccctta acatcaactt tctggtgcga 31680

tgcgcgcagc aacgcattct gatttcactc aaatctttgc agtaggtaca acacattatt 31740

acaatattgt ttaataaacc ataattaaaa gcgctccagc caaaactcat atctgatata 31800

atcgcccctg catgaccatc ataccaaagt ttaatataaa ttaaatgacg ttccctcaaa 31860

aacacactac ccacatacat gatctctttt ggcatgtgca tattaacaat ctgtctgtac 31920

catggacaac gttggttaat catgcaaccc aatataacct tccggaacca cactgccaac 31980

accgctcccc cagccatgca ttgaagtgaa ccctgctgat tacaatgaca atgaagaacc 32040

caattctctc gaccgtgaat cacttgagaa tgaaaaatat ctatagtggc acaacataga 32100

cataaatgca tgcatcttct cataattttt aactcctcag gatttagaaa catatcccag 32160

ggaataggaa gctcttgcag aacagtaaag ctggcagaac aaggaagacc acgaacacaa 32220

cttacactat gcatagtcat agtatcacaa tctggcaaca gcgggtggtc ttcagtcata 32280

gaagctcggg tttcattttc ctcacaacgt ggtaactggg ctctggtgta agggtgatgt 32340

ctggcgcatg atgtcgagcg tgcgcgcaac cttgtcataa tggagttgct tcctgacatt 32400

ctcgtatttt gtatagcaaa acgcggccct ggcagaacac actcttcttc gccttctatc 32460

ctgccgctta gcgtgttccg tgtgatagtt caagtacaac cacactctta agttggtcaa 32520

aagaatgctg gcttcagttg taatcaaaac tccatcgcat ctaatcgttc tgaggaaatc 32580

atccaagcaa tgcaactgga ttgtgtttca agcaggagag gagagggaag agacggaaga 32640

accatgttaa tttttattcc aaacgatctc gcagtacttc aaattgtaga tcgcgcagat 32700

ggcatctctc gcccccactg tgttggtgaa aaagcacagc tagatcaaaa gaaatgcgat 32760

tttcaaggtg ctcaacggtg gcttccagca aagcctccac gcgcacatcc aagaacaaaa 32820

gaataccaaa agaaggagca ttttctaact cctcaatcat catattacat tcctgcacca 32880

ttcccagata attttcagct ttccagcctt gaattattcg tgtcagttct tgtggtaaat 32940

ccaatccaca cattacaaac aggtcccgga gggcgccctc caccaccatt cttaaacaca 33000

ccctcataat gacaaaatat cttgctcctg tgtcacctgt agcgaattga gaatggcaac 33060

atcaattgac atgcccttgg ctctaagttc ttctttaagt tctagttgta aaaactctct 33120

catattatca ccaaactgct tagccagaag ccccccggga acaagagcag gggacgctac 33180

agtgcagtac aagcgcagac ctccccaatt ggctccagca aaaacaagat tggaataagc 33240

atattgggaa ccgccagtaa tatcatcgaa gttgctggaa atataatcag gcagagtttc 33300

ttgtaaaaat tgaataaaag aaaaatttgc caaaaaaaca ttcaaaacct ctgggatgca 33360

aatgcaatag gttaccgcgc tgcgctccaa cattgttagt tttgaattag tctgcaaaaa 33420

taaaaaaaaa aacaagcgtc atatcatagt agcctgacga acagatggat aaatcagtct 33480

ttccatcaca agacaagcca cagggtctcc agctcgaccc tcgtaaaacc tgtcatcatg 33540

attaaacaac agcaccgaaa gttcctcgcg gtgaccagca tgaataattc ttgatgaagc 33600

atacaatcca gacatgttag catcagttaa cgagaaaaaa cagccaacat agcctttggg 33660

tataattatg cttaatcgta agtatagcaa agccacccct cgcggataca aagtaaaagg 33720

cacaggagaa taaaaaatat aattatttct ctgctgctgt tcaggcaacg tcgcccccgg 33780

tccctctaaa tacacataca aagcctcatc agccatggct taccagacaa agtacagcgg 33840

gcacacaaag cacaagctct aaagtgactc tccaacctct ccacaatata tatatacaca 33900

agccctaaac tgacgtaatg ggagtaaagt gtaaaaaatc ccgccaaacc caacacacac 33960

cccgaaactg cgtcaccagg gaaaagtaca gtttcacttc cgcaatccca acaggcgtaa 34020

cttcctcttt ctcacggtac gtgatatccc actaacttgc aacgtcattt tcccacggtc 34080

gcaccgcccc ttttagccgt taaccccaca gccaatcacc acacgatcca cacttttaa 34140

aatcacctca tttacatatt ggcaccattc catctataag gtatattata tagataga 34198

<210> 58
<211> 34210
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-612 Genome

<400> 58
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agtttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacatttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc tggagctgca tcatcttgtt 29400

cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa gccctgactc 29460

gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc agagcctgct 29520

gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg gccagcctcc 29580

caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc gcttcagcgg 29640

aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg aggacgtggc 29700

cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag gcaccaaggt 29760

ggagattaag ggagggggcg gcagcggggg aggcggcagc ggcggcgggg gatcgcaggt 29820

ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca aggtcagctg 29880

caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc aggcgcccgg 29940

ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa attacaatca 30000

gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg cgtacatgga 30060

gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc gccggatcgc 30120

ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc tcgtcacggt 30180

gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg aactggcaag 30240

acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta ctaggtacac 30300

gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat acattaatcc 30360

tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat tgactacaga 30420

caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg actctgcagt 30480

ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg gccaaggcac 30540

cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg gtggcggcgg 30600

atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag gggagaaggt 30660

caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc agcagaagtc 30720

aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg gagtccctgc 30780

tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg gcatggaggc 30840

tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca cgttcggctc 30900

ggggacaaag ttggaaataa accggcatca ccatcaccat caccaccatc accattaggc 30960

tagcttgact gactgagata cagcgtacct tcagctcaca gacatgataa gatacattga 31020

tgagtttgga caaaccacaa ctagaatgca gtgaaaaaaa tgctttattt gtgaaatttg 31080

tgatgctatt gctttatttg taaccattat aagctgcaat aaacaagtta acaacaacaa 31140

ttgcattcat tttatgtttc aggttcaggg ggaggtgtgg gaggtttttt aaagcaagta 31200

aaacctctac aaatgtggta gtcgtcagct atcctgcagg aacttgttta tttgaaaatc 31260

aattcacaaa atccgagtag ttattttgcc tccccttcc catttaacag aatacaccaa 31320

tctctcccca cgcacagctt taaacatttg gataccatta gatatagaca tggttttaga 31380

ttccacattc caaacagttt cagagcgagc caatctgggg tcagtgatag ataaaaatcc 31440

atcgggatag tcttttaaag cgctttcaca gtccaactgc tgcggatgcg actccggagt 31500

ctggatcacg gtcatctgga agaagaacga tgggaatcat aatccgaaaa cggtatcgga 31560

cgattgtgtc tcatcaaacc cacaagcagc cgctgtctgc gtcgctccgt gcgactgctg 31620

tttatgggat cagggtccac agtgtcctga agcatgattt taatagccct taacatcaac 31680

tttctggtgc gatgcgcgca gcaacgcatt ctgatttcac tcaaatcttt gcagtaggta 31740

caacacatta ttacaatatt gtttaataaa ccataattaa aagcgctcca gccaaaactc 31800

atatctgata taatcgcccc tgcatgacca tcataccaaa gtttaatata aattaaatga 31860

cgttccctca aaaacacact acccacatac atgatctctt ttggcatgtg catattaaca 31920

atctgtctgt accatggaca acgttggtta atcatgcaac ccaatataac cttccggaac 31980

cacactgcca acaccgctcc cccagccatg cattgaagtg aaccctgctg attacaatga 32040

caatgaagaa cccaattctc tcgaccgtga atcacttgag aatgaaaaat atctatagtg 32100

gcacaacata gacataaatg catgcatctt ctcataattt ttaactcctc aggatttaga 32160

aacatatccc agggaatagg aagctcttgc agaacagtaa agctggcaga acaaggaaga 32220

ccacgaacac aacttacact atgcatagtc atagtatcac aatctggcaa cagcgggtgg 32280

tcttcagtca tagaagctcg ggtttcattt tcctcacaac gtggtaactg ggctctggtg 32340

taagggtgat gtctggcgca tgatgtcgag cgtgcgcgca accttgtcat aatggagttg 32400

cttcctgaca ttctcgtatt ttgtatagca aaacgcggcc ctggcagaac acactcttct 32460

tcgccttcta tcctgccgct tagcgtgttc cgtgtgatag ttcaagtaca accacactct 32520

taagttggtc aaaagaatgc tggcttcagt tgtaatcaaa actccatcgc atctaatcgt 32580

tctgaggaaa tcatccaagc aatgcaactg gattgtgttt caagcaggag aggagaggga 32640

agagacggaa gaaccatgtt aatttttatt ccaaacgatc tcgcagtact tcaaattgta 32700

gatcgcgcag atggcatctc tcgcccccac tgtgttggtg aaaaagcaca gctagatcaa 32760

aagaaatgcg attttcaagg tgctcaacgg tggcttccag caaagcctcc acgcgcacat 32820

ccaagaacaa aagaatacca aaagaaggag cattttctaa ctcctcaatc atcatattac 32880

attcctgcac cattcccaga taattttcag ctttccagcc ttgaattatt cgtgtcagtt 32940

cttgtggtaa atccaatcca cacattacaa acaggtcccg gagggcgccc tccaccacca 33000

ttcttaaaca caccctcata atgacaaaat atcttgctcc tgtgtcacct gtagcgaatt 33060

gagaatggca acatcaattg acatgccctt ggctctaagt tcttctttaa gttctagttg 33120

taaaaactct ctcatattat caccaaactg cttagccaga agccccccgg gaacaagagc 33180

aggggacgct acagtgcagt acaagcgcag acctccccaa ttggctccag caaaaacaag 33240

attggaataa gcatattggg aaccgccagt aatatcatcg aagttgctgg aaatataatc 33300

aggcagagtt tcttgtaaaa attgaataaa agaaaaattt gccaaaaaaa cattcaaaac 33360

ctctgggatg caaatgcaat aggttaccgc gctgcgctcc aacattgtta gttttgaatt 33420

agtctgcaaa aataaaaaaa aaaacaagcg tcatatcata gtagcctgac gaacagatgg 33480

ataaatcagt ctttccatca caagacaagc cacagggtct ccagctcgac cctcgtaaaa 33540

cctgtcatca tgattaaaca acagcaccga aagttcctcg cggtgaccag catgaataat 33600

tcttgatgaa gcatacaatc cagacatgtt agcatcagtt aacgagaaaa aacagccaac 33660

atagcctttg ggtataatta tgcttaatcg taagtatagc aaagccaccc ctcgcggata 33720

caaagtaaaa ggcacaggag aataaaaaat ataattattt ctctgctgct gttcaggcaa 33780

cgtcgccccc ggtccctcta aatacacata caaagcctca tcagccatgg cttaccagac 33840

aaagtacagc gggcacacaa agcacaagct ctaaagtgac tctccaacct ctccacaata 33900

tatatataca caagccctaa actgacgtaa tgggagtaaa gtgtaaaaaa tcccgccaaa 33960

cccaacacac accccgaaac tgcgtcacca gggaaaagta cagtttcact tccgcaatcc 34020

caacaggcgt aacttcctct ttctcacggt acgtgatatc ccactaactt gcaacgtcat 34080

tttcccacgg tcgcaccgcc ccttttagcc gttaacccca cagccaatca ccacacgatc 34140

cacacttttt aaaatcacct catttacata ttggcaccat tccatctata aggtatatta 34200

tatagataga 34210

<210> 59
<211> 34220
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-613 Genome

<400> 59
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctttctc tcttcaggcc caccatgggc tggagctgca 29400

tcatcttgtt cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa 29460

gccctgactc gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc 29520

agagcctgct gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg 29580

gccagcctcc caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc 29640

gcttcagcgg aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg 29700

aggacgtggc cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag 29760

gcaccaaggt ggagattaag ggagggggcg gcagcggggg aggcggcagc ggcggcgggg 29820

gatcgcaggt ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca 29880

aggtcagctg caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc 29940

aggcgcccgg ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa 30000

attacaatca gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg 30060

cgtacatgga gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc 30120

gccggatcgc ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc 30180

tcgtcacggt gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg 30240

aactggcaag acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta 30300

ctaggtacac gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat 30360

acattaatcc tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat 30420

tgactacaga caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg 30480

actctgcagt ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg 30540

gccaaggcac cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg 30600

gtggcggcgg atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag 30660

gggagaaggt caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc 30720

agcagaagtc aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg 30780

gagtccctgc tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg 30840

gcatggaggc tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca 30900

cgttcggctc ggggacaaag ttggaaataa accggcatca ccatcaccat caccaccatc 30960

accattaggc tagcttgact gactgagata cagcgtacct tcagctcaca gacatgataa 31020

gatacattga tgagtttgga caaaccacaa ctagaatgca gtgaaaaaaa tgctttattt 31080

gtgaaatttg tgatgctatt gctttatttg taaccattat aagctgcaat aaacaagtta 31140

acaacaacaa ttgcattcat tttatgtttc aggttcaggg ggaggtgtgg gaggtttttt 31200

aaagcaagta aaacctctac aaatgtggta gtcgtcagct atcctgcagg aacttgttta 31260

tttgaaaatc aattcacaaa atccgagtag ttattttgcc tccccttcc catttaacag 31320

aatacaccaa tctctcccca cgcacagctt taaacatttg gataccatta gatatagaca 31380

tggttttaga ttccacattc caaacagttt cagagcgagc caatctgggg tcagtgatag 31440

ataaaaatcc atcgggatag tcttttaaag cgctttcaca gtccaactgc tgcggatgcg 31500

actccggagt ctggatcacg gtcatctgga agaagaacga tgggaatcat aatccgaaaa 31560

cggtatcgga cgattgtgtc tcatcaaacc cacaagcagc cgctgtctgc gtcgctccgt 31620

gcgactgctg tttatgggat cagggtccac agtgtcctga agcatgattt taatagccct 31680

taacatcaac tttctggtgc gatgcgcgca gcaacgcatt ctgatttcac tcaaatcttt 31740

gcagtaggta caacacatta ttacaatatt gtttaataaa ccataattaa aagcgctcca 31800

gccaaaactc atatctgata taatcgcccc tgcatgacca tcataccaaa gtttaatata 31860

aattaaatga cgttccctca aaaacacact acccacatac atgatctctt ttggcatgtg 31920

catattaaca atctgtctgt accatggaca acgttggtta atcatgcaac ccaatataac 31980

cttccggaac cacactgcca acaccgctcc cccagccatg cattgaagtg aaccctgctg 32040

attacaatga caatgaagaa cccaattctc tcgaccgtga atcacttgag aatgaaaaat 32100

atctatagtg gcacaacata gacataaatg catgcatctt ctcataattt ttaactcctc 32160

aggatttaga aacatatccc agggaatagg aagctcttgc agaacagtaa agctggcaga 32220

acaaggaaga ccacgaacac aacttacact atgcatagtc atagtatcac aatctggcaa 32280

cagcgggtgg tcttcagtca tagaagctcg ggtttcattt tcctcacaac gtggtaactg 32340

ggctctggtg taagggtgat gtctggcgca tgatgtcgag cgtgcgcgca accttgtcat 32400

aatggagttg cttcctgaca ttctcgtatt ttgtatagca aaacgcggcc ctggcagaac 32460

acactcttct tcgccttcta tcctgccgct tagcgtgttc cgtgtgatag ttcaagtaca 32520

accacactct taagttggtc aaaagaatgc tggcttcagt tgtaatcaaa actccatcgc 32580

atctaatcgt tctgaggaaa tcatccaagc aatgcaactg gattgtgttt caagcaggag 32640

aggagaggga agagacggaa gaaccatgtt aatttttatt ccaaacgatc tcgcagtact 32700

tcaaattgta gatcgcgcag atggcatctc tcgcccccac tgtgttggtg aaaaagcaca 32760

gctagatcaa aagaaatgcg attttcaagg tgctcaacgg tggcttccag caaagcctcc 32820

acgcgcacat ccaagaacaa aagaatacca aaagaaggag cattttctaa ctcctcaatc 32880

atcatattac attcctgcac cattcccaga taattttcag ctttccagcc ttgaattatt 32940

cgtgtcagtt cttgtggtaa atccaatcca cacattacaa acaggtcccg gagggcgccc 33000

tccaccacca ttcttaaaca caccctcata atgacaaaat atcttgctcc tgtgtcacct 33060

gtagcgaatt gagaatggca acatcaattg acatgccctt ggctctaagt tcttctttaa 33120

gttctagttg taaaaactct ctcatattat caccaaactg cttagccaga agccccccgg 33180

gaacaagagc aggggacgct acagtgcagt acaagcgcag acctccccaa ttggctccag 33240

caaaaacaag attggaataa gcatattggg aaccgccagt aatatcatcg aagttgctgg 33300

aaatataatc aggcagagtt tcttgtaaaa attgaataaa agaaaaattt gccaaaaaaa 33360

cattcaaaac ctctgggatg caaatgcaat aggttaccgc gctgcgctcc aacattgtta 33420

gttttgaatt agtctgcaaa aataaaaaaa aaaacaagcg tcatatcata gtagcctgac 33480

gaacagatgg ataaatcagt ctttccatca caagacaagc cacagggtct ccagctcgac 33540

cctcgtaaaa cctgtcatca tgattaaaca acagcaccga aagttcctcg cggtgaccag 33600

catgaataat tcttgatgaa gcatacaatc cagacatgtt agcatcagtt aacgagaaaa 33660

aacagccaac atagcctttg ggtataatta tgcttaatcg taagtatagc aaagccaccc 33720

ctcgcggata caaagtaaaa ggcacaggag aataaaaaat ataattattt ctctgctgct 33780

gttcaggcaa cgtcgccccc ggtccctcta aatacacata caaagcctca tcagccatgg 33840

cttaccagac aaagtacagc gggcacacaa agcacaagct ctaaagtgac tctccaacct 33900

ctccacaata tatatataca caagccctaa actgacgtaa tgggagtaaa gtgtaaaaaa 33960

tcccgccaaa cccaacacac accccgaaac tgcgtcacca gggaaaagta cagtttcact 34020

tccgcaatcc caacaggcgt aacttcctct ttctcacggt acgtgatatc ccactaactt 34080

gcaacgtcat tttcccacgg tcgcaccgcc ccttttagcc gttaacccca cagccaatca 34140

ccacacgatc cacacttttt aaaatcacct catttacata ttggcaccat tccatctata 34200

aggtatatta tatagataga 34220

<210> 60
<211> 34226
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-614 Genome

<400> 60
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctttctc tcttcaggcc caccatgggc tggagctgca 29400

tcatcttgtt cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa 29460

gccctgactc gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc 29520

agagcctgct gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg 29580

gccagcctcc caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc 29640

gcttcagcgg aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg 29700

aggacgtggc cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag 29760

gcaccaaggt ggagattaag ggagggggcg gcagcggggg aggcggcagc ggcggcgggg 29820

gatcgcaggt ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca 29880

aggtcagctg caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc 29940

aggcgcccgg ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa 30000

attacaatca gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg 30060

cgtacatgga gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc 30120

gccggatcgc ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc 30180

tcgtcacggt gtcgtcagga ggcggcggtt cagatgtgca actcgtgcag tccggtgcgg 30240

aagtgaaaaa gccgggcgcg agcgtcaaag tgtcatgcaa ggcgtcagga tatacgttta 30300

ctagatacac tatgcactgg gtgcgccagg cacctggtca gggccttgaa tggatcggct 30360

acatcaatcc gtcgagaggc tacactaatt acgcggactc agtcaaaggg cgcttcacga 30420

ttacgaccga caagtccacc tcgactgcat acatggaact gtcctcgctg agaagcgagg 30480

acaccgctac ttactactgc gctagatact acgatgatca ctactgcctc gattactggg 30540

gccagggaac cactgtcacg gtgtcatcgg gagagggcac ctcaaccgga tcaggggat 30600

cgggaggctc gggcggcgca gacgacatcg tcctgaccca gtcgcccgcc accttgtcgc 30660

tgtccccagg agaaagagcg accctgtcat gccgggcgtc gcaaagcgtg agctatatga 30720

attggtatca gcagaagcca ggaaaggcgc cgaagagatg gatctacgac acctccaagg 30780

tcgcttcagg tgtcccggct agattctcag gatcgggatc aggaacggac tactccctga 30840

ccatcaattc actggaagca gaagatgcgg ccacctacta ctgtcagcag tggtcctcca 30900

acccgctgac tttcggaggc ggaactaagg tcgagatcaa gcatcaccat caccatcacc 30960

accatcacca ttaggctagc ttgactgact gagatacagc gtaccttcag ctcacagaca 31020

tgataagata cattgatgag tttggacaaa ccacaactag aatgcagtga aaaaaatgct 31080

ttatttgtga aatttgtgat gctattgctt tatttgtaac cattataagc tgcaataaac 31140

aagttaacaa caacaattgc attcatttta tgtttcaggt tcaggggga gtgtgggagg 31200

ttttttaaag caagtaaaac ctctacaaat gtggtagtcg tcagctatcc tgcaggaact 31260

tgtttatttg aaaatcaatt cacaaaatcc gagtagttat tttgcctccc ccttcccatt 31320

taacagaata caccaatctc tccccacgca cagctttaaa catttggata ccattagata 31380

tagacatggt tttagattcc acattccaaa cagtttcaga gcgagccaat ctggggtcag 31440

tgatagataa aaatccatcg ggatagtctt ttaaagcgct ttcacagtcc aactgctgcg 31500

gatgcgactc cggagtctgg atcacggtca tctggaagaa gaacgatggg aatcataatc 31560

cgaaaacggt atcggacgat tgtgtctcat caaacccaca agcagccgct gtctgcgtcg 31620

ctccgtgcga ctgctgttta tgggatcagg gtccacagtg tcctgaagca tgattttaat 31680

agcccttaac atcaactttc tggtgcgatg cgcgcagcaa cgcattctga tttcactcaa 31740

atctttgcag taggtacaac acattattac aatattgttt aataaaccat aattaaaagc 31800

gctccagcca aaactcatat ctgatataat cgcccctgca tgaccatcat accaaagttt 31860

aatataaatt aaatgacgtt ccctcaaaaa cacactaccc acatacatga tctcttttgg 31920

catgtgcata ttaacaatct gtctgtacca tggacaacgt tggttaatca tgcaacccaa 31980

tataaccttc cggaaccaca ctgccaacac cgctccccca gccatgcatt gaagtgaacc 32040

ctgctgatta caatgacaat gaagaaccca attctctcga ccgtgaatca cttgagaatg 32100

aaaaatatct atagtggcac aacatagaca taaatgcatg catcttctca taatttttaa 32160

ctcctcagga tttagaaaca tatcccaggg aataggaagc tcttgcagaa cagtaaagct 32220

ggcagaacaa ggaagaccac gaacacaact tacactatgc atagtcatag tatcacaatc 32280

tggcaacagc gggtggtctt cagtcataga agctcgggtt tcattttcct cacaacgtgg 32340

taactgggct ctggtgtaag ggtgatgtct ggcgcatgat gtcgagcgtg cgcgcaacct 32400

tgtcataatg gagttgcttc ctgacattct cgtattttgt atagcaaaac gcggccctgg 32460

cagaacacac tcttcttcgc cttctatcct gccgcttagc gtgttccgtg tgatagttca 32520

agtacaacca cactcttaag ttggtcaaaa gaatgctggc ttcagttgta atcaaaactc 32580

catcgcatct aatcgttctg aggaaatcat ccaagcaatg caactggatt gtgtttcaag 32640

caggagagga gagggaagag acggaagaac catgttaatt tttattccaa acgatctcgc 32700

agtacttcaa attgtagatc gcgcagatgg catctctcgc ccccactgtg ttggtgaaaa 32760

agcacagcta gatcaaaaga aatgcgattt tcaaggtgct caacggtggc ttccagcaaa 32820

gcctccacgc gcacatccaa gaacaaaaga ataccaaaag aaggagcatt ttctaactcc 32880

tcaatcatca tattacattc ctgcaccatt cccagataat tttcagcttt ccagccttga 32940

attattcgtg tcagttcttg tggtaaatcc aatccacaca ttacaaacag gtcccggagg 33000

gcgccctcca ccaccattct taaacacacc ctcataatga caaaatatct tgctcctgtg 33060

tcacctgtag cgaattgaga atggcaacat caattgacat gcccttggct ctaagttctt 33120

ctttaagttc tagttgtaaa aactctctca tattatcacc aaactgctta gccagaagcc 33180

ccccgggaac aagagcaggg gacgctacag tgcagtacaa gcgcagacct ccccaattgg 33240

ctccagcaaa aacaagattg gaataagcat attgggaacc gccagtaata tcatcgaagt 33300

tgctggaaat ataatcaggc agagtttctt gtaaaaattg aataaaagaa aaatttgcca 33360

aaaaaacatt caaaacctct gggatgcaaa tgcaataggt taccgcgctg cgctccaaca 33420

ttgttagttt tgaattagtc tgcaaaaata aaaaaaaaaa caagcgtcat atcatagtag 33480

cctgacgaac agatggataa atcagtcttt ccatcacaag acaagccaca gggtctccag 33540

ctcgaccctc gtaaaacctg tcatcatgat taaacaacag caccgaaagt tcctcgcggt 33600

gaccagcatg aataattctt gatgaagcat acaatccaga catgttagca tcagttaacg 33660

agaaaaaaca gccaacatag cctttgggta taattatgct taatcgtaag tatagcaaag 33720

ccacccctcg cggatacaaa gtaaaaggca caggagaata aaaaatataa ttatttctct 33780

gctgctgttc aggcaacgtc gcccccggtc cctctaaata cacatacaaa gcctcatcag 33840

ccatggctta ccagacaaag tacagcgggc acacaaagca caagctctaa agtgactctc 33900

caacctctcc acaatatata tatacacaag ccctaaactg acgtaatggg agtaaagtgt 33960

aaaaaatccc gccaaaccca acacacaccc cgaaactgcg tcaccaggga aaagtacagt 34020

ttcacttccg caatcccaac aggcgtaact tcctctttct cacggtacgt gatatcccac 34080

taacttgcaa cgtcattttc ccacggtcgc accgcccctt ttagccgtta accccacagc 34140

caatcaccac acgatccaca ctttttaaaa tcacctcatt tacatattgg caccattcca 34200

tctataaggt atattatata gataga 34226

<210> 61
<211> 35749
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-615 Genome

<400> 61
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

ttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc tggagctgca tcatcttgtt 29400

cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa gccctgactc 29460

gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc agagcctgct 29520

gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg gccagcctcc 29580

caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc gcttcagcgg 29640

aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg aggacgtggc 29700

cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag gcaccaaggt 29760

ggagattaag ggaggggcg gcagcggggg aggcggcagc ggcggcgggg gatcgcaggt 29820

ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca aggtcagctg 29880

caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc aggcgcccgg 29940

ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa attacaatca 30000

gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg cgtacatgga 30060

gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc gccggatcgc 30120

ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc tcgtcacggt 30180

gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg aactggcaag 30240

acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta ctaggtacac 30300

gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat acattaatcc 30360

tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat tgactacaga 30420

caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg actctgcagt 30480

ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg gccaaggcac 30540

cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg gtggcggcgg 30600

atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag gggagaaggt 30660

caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc agcagaagtc 30720

aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg gagtccctgc 30780

tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg gcatggaggc 30840

tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca cgttcggctc 30900

ggggacaaag ttggaaataa accggggaag cggacagtgt actaattatg ctctcttgaa 30960

attggctgga gatgttgaga gcaaccctgg acctacagtg ctggcgccag cctggagccc 31020

aacaacctat ctcctcctgc tgctgctgct gagctcggga ctcagtggga cccaggactg 31080

ctccttccaa cacagcccca tctcctccga cttcgctgtc aaaatccgtg agctgtctga 31140

ctacctgctt caagattacc cagtcaccgt ggcctccaac ctccaggacg aggagctctg 31200

cgggggcctc tggcggctgg tcctggcaca gcgctggatg gagcggctca agactgtcgc 31260

tgggtccaag atgcaaggct tgctggagcg cgtgaacacg gagatacact ttgtcaccaa 31320

atgtgccttt cagccccccc ccagctgtct tcgcttcgtc cagaccaaca tctcccgcct 31380

cctacaggag acctccgagc agctggtggc gctgaagccc tggatcactc gccagaactt 31440

ctcccggtgc ctggagctgc agtgtcagcc cgactcctca accctgccac ccccatggag 31500

tccccggccc ctggaggcca cagccccggg aagcggagct actaacttca gcctgctgaa 31560

gcaggctgga gacgtggagg agaaccctgg acctcaggtc tccactgctg cccttgccgt 31620

cctcctctgc accatggctc tctgcaacca ggtcctctct gcaccacttg ctgctgacac 31680

gccgaccgcc tgctgcttca gctacacctc ccgacagatt ccacagaatt tcatagctga 31740

ctactttgag acgagcagcc agtgctccaa gcccagtgtc atcttcctaa ccaagagagg 31800

ccggcaggtc tgtgctgacc ccagtgagga gtgggtccag aaatacgtca gtgacctgga 31860

gctgagtgcc ggaagcggag agggcagagg aagtctgcta acatgcggtg acgtcgagga 31920

gaatcctgga cctgccttga cctttgcttt actggtggcc ctcctggtgc tcagctgcaa 31980

gtcaagctgc tctgtgggct gtgatctgcc tcaaacccac agcctgggta gcaggaggac 32040

cttgatgctc ctggcacaga tgaggagaat ctctcttttc tcctgcttga aggacagaca 32100

tgactttgga tttccccagg aggagtttgg caaccagttc caaaaggctg aaaccatccc 32160

tgtcctccat gagatgatcc agcagatctt caatctcttc agcacaaagg actcatctgc 32220

tgcttgggat gagaccctcc tagacaaatt ctacactgaa ctctaccagc agctgaatga 32280

cctggaagcc tgtgtgatac agggggtggg ggtgacagag actcccctga tgaaggagga 32340

ctccattctg gctgtgagga aatacttcca aagaatcact ctctatctga aagagaagaa 32400

atacagccct tgtgcctggg aggttgtcag agcagaaatc atgagatctt tttctttgtc 32460

aacaaacttg caagaaagtt taagaagtaa ggaataagct agcttgactg actgagatac 32520

agcgtacctt cagctcacag acatgataag atacattgat gagtttggac aaaccacaac 32580

tagaatgcag tgaaaaaaat gctttatttg tgaaatttgt gatgctattg ctttatttgt 32640

aaccattata agctgcaata aacaagttaa caacaacaat tgcattcatt ttatgtttca 32700

ggttcagggg gaggtgtggg aggtttttta aagcaagtaa aacctctaca aatgtggtag 32760

tcgtcagcta tcctgcagga acttgtttat ttgaaaatca attcacaaaa tccgagtagt 32820

tattttgcct cccccttccc atttaacaga atacaccaat ctctccccac gcacagcttt 32880

aaacatttgg ataccattag atatagacat ggttttagat tccacattcc aaacagtttc 32940

agagcgagcc aatctggggt cagtgataga taaaaatcca tcgggatagt cttttaaagc 33000

gctttcacag tccaactgct gcggatgcga ctccggagtc tggatcacgg tcatctggaa 33060

gaagaacgat gggaatcata atccgaaaac ggtatcggac gattgtgtct catcaaaccc 33120

acaagcagcc gctgtctgcg tcgctccgtg cgactgctgt ttatgggatc agggtccaca 33180

gtgtcctgaa gcatgatttt aatagccctt aacatcaact ttctggtgcg atgcgcgcag 33240

caacgcattc tgatttcact caaatctttg cagtaggtac aacacattat tacaatattg 33300

tttaataaac cataattaaa agcgctccag ccaaaactca tatctgatat aatcgcccct 33360

gcatgaccat cataccaaag tttaatataa attaaatgac gttccctcaa aaacacacta 33420

cccacataca tgatctcttt tggcatgtgc atattaacaa tctgtctgta ccatggacaa 33480

cgttggttaa tcatgcaacc caatataacc ttccggaacc acactgccaa caccgctccc 33540

ccagccatgc attgaagtga accctgctga ttacaatgac aatgaagaac ccaattctct 33600

cgaccgtgaa tcacttgaga atgaaaaata tctatagtgg cacaacatag acataaatgc 33660

atgcatcttc tcataatttt taactcctca ggatttagaa acatatccca gggaatagga 33720

agctcttgca gaacagtaaa gctggcagaa caaggaagac cacgaacaca acttacacta 33780

tgcatagtca tagtatcaca atctggcaac agcgggtggt cttcagtcat agaagctcgg 33840

gtttcatttt cctcacaacg tggtaactgg gctctggtgt aagggtgatg tctggcgcat 33900

gatgtcgagc gtgcgcgcaa ccttgtcata atggagttgc ttcctgacat tctcgtattt 33960

tgtatagcaa aacgcggccc tggcagaaca cactcttctt cgccttctat cctgccgctt 34020

agcgtgttcc gtgtgatagt tcaagtacaa ccacactctt aagttggtca aaagaatgct 34080

ggcttcagtt gtaatcaaaa ctccatcgca tctaatcgtt ctgaggaaat catccaagca 34140

atgcaactgg attgtgtttc aagcaggaga ggagagggaa gagacggaag aaccatgtta 34200

atttttattc caaacgatct cgcagtactt caaattgtag atcgcgcaga tggcatctct 34260

cgcccccact gtgttggtga aaaagcacag ctagatcaaa agaaatgcga ttttcaaggt 34320

gctcaacggt ggcttccagc aaagcctcca cgcgcacatc caagaacaaa agaataccaa 34380

aagaaggagc attttctaac tcctcaatca tcatattaca ttcctgcacc attcccagat 34440

aattttcagc tttccagcct tgaattattc gtgtcagttc ttgtggtaaa tccaatccac 34500

acattacaaa caggtcccgg agggcgccct ccaccaccat tcttaaacac accctcataa 34560

tgacaaaata tcttgctcct gtgtcacctg tagcgaattg agaatggcaa catcaattga 34620

catgcccttg gctctaagtt cttctttaag ttctagttgt aaaaactctc tcatattatc 34680

accaaactgc ttagccagaa gccccccggg aacaagagca ggggacgcta cagtgcagta 34740

caagcgcaga cctccccaat tggctccagc aaaaacaaga ttggaataag catattggga 34800

accgccagta atatcatcga agttgctgga aatataatca ggcagagttt cttgtaaaaa 34860

ttgaataaaa gaaaaatttg ccaaaaaaac attcaaaacc tctgggatgc aaatgcaata 34920

ggttaccgcg ctgcgctcca acattgttag ttttgaatta gtctgcaaaa ataaaaaaaa 34980

aaacaagcgt catatcatag tagcctgacg aacagatgga taaatcagtc tttccatcac 35040

aagacaagcc acagggtctc cagctcgacc ctcgtaaaac ctgtcatcat gattaaacaa 35100

cagcaccgaa agttcctcgc ggtgaccagc atgaataatt cttgatgaag catacaatcc 35160

agacatgtta gcatcagtta acgagaaaaa acagccaaca tagcctttgg gtataattat 35220

gcttaatcgt aagtatagca aagccacccc tcgcggatac aaagtaaaag gcacaggaga 35280

ataaaaaata taattatttc tctgctgctg ttcaggcaac gtcgcccccg gtccctctaa 35340

atacacatac aaagcctcat cagccatggc ttaccagaca aagtacagcg ggcacacaaa 35400

gcacaagctc taaagtgact ctccaacctc tccacaatat atatatacac aagccctaaa 35460

ctgacgtaat gggagtaaag tgtaaaaaat cccgccaaac ccaacacaca ccccgaaact 35520

gcgtcaccag ggaaaagtac agtttcactt ccgcaatccc aacaggcgta acttcctctt 35580

tctcacggta cgtgatatcc cactaacttg caacgtcatt ttcccacggt cgcaccgccc 35640

cttttagccg ttaaccccac agccaatcac cacacgatcc acacttttta aaatcacctc 35700

atttacatat tggcaccatt ccatctataa ggtatattat atagataga 35749

<210> 62
<211> 35759
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-616 genome sequence

<400> 62
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gttttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgctttctc tcttcaggcc caccatgggc tggagctgca 29400

tcatcttgtt cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa 29460

gccctgactc gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc 29520

agagcctgct gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg 29580

gccagcctcc caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc 29640

gcttcagcgg aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg 29700

aggacgtggc cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag 29760

gcaccaaggt ggagattaag ggagggggcg gcagcggggg aggcggcagc ggcggcgggg 29820

gatcgcaggt ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca 29880

aggtcagctg caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc 29940

aggcgcccgg ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa 30000

attacaatca gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg 30060

cgtacatgga gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc 30120

gccggatcgc ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc 30180

tcgtcacggt gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg 30240

aactggcaag acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta 30300

ctaggtacac gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat 30360

acattaatcc tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat 30420

tgactacaga caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg 30480

actctgcagt ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg 30540

gccaaggcac cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg 30600

gtggcggcgg atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag 30660

gggagaaggt caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc 30720

agcagaagtc aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg 30780

gagtccctgc tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg 30840

gcatggaggc tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca 30900

cgttcggctc ggggacaaag ttggaaataa accggggaag cggacagtgt actaattatg 30960

ctctcttgaa attggctgga gatgttgaga gcaaccctgg acctacagtg ctggcgccag 31020

cctggagccc aacaacctat ctcctcctgc tgctgctgct gagctcggga ctcagtggga 31080

cccaggactg ctccttccaa cacagcccca tctcctccga cttcgctgtc aaaatccgtg 31140

agctgtctga ctacctgctt caagattacc cagtcaccgt ggcctccaac ctccaggacg 31200

aggagctctg cgggggcctc tggcggctgg tcctggcaca gcgctggatg gagcggctca 31260

agactgtcgc tgggtccaag atgcaaggct tgctggagcg cgtgaacacg gagatacact 31320

ttgtcaccaa atgtgccttt cagcccccc ccagctgtct tcgcttcgtc cagaccaaca 31380

tctcccgcct cctacaggag acctccgagc agctggtggc gctgaagccc tggatcactc 31440

gccagaactt ctcccggtgc ctggagctgc agtgtcagcc cgactcctca accctgccac 31500

ccccatggag tccccggccc ctggaggcca cagccccggg aagcggagct actaacttca 31560

gcctgctgaa gcaggctgga gacgtggagg agaaccctgg acctcaggtc tccactgctg 31620

cccttgccgt cctcctctgc accatggctc tctgcaacca ggtcctctct gcaccacttg 31680

ctgctgacac gccgaccgcc tgctgcttca gctacacctc ccgacagatt ccacagaatt 31740

tcatagctga ctactttgag acgagcagcc agtgctccaa gcccagtgtc atcttcctaa 31800

ccaagagagg ccggcaggtc tgtgctgacc ccagtgagga gtgggtccag aaatacgtca 31860

gtgacctgga gctgagtgcc ggaagcggag agggcagagg aagtctgcta acatgcggtg 31920

acgtcgagga gaatcctgga cctgccttga cctttgcttt actggtggcc ctcctggtgc 31980

tcagctgcaa gtcaagctgc tctgtgggct gtgatctgcc tcaaacccac agcctgggta 32040

gcaggaggac cttgatgctc ctggcacaga tgaggagaat ctctcttttc tcctgcttga 32100

aggacagaca tgactttgga tttccccagg aggagtttgg caaccagttc caaaaggctg 32160

aaaccatccc tgtcctccat gagatgatcc agcagatctt caatctcttc agcacaaagg 32220

actcatctgc tgcttgggat gagaccctcc tagacaaatt ctacactgaa ctctaccagc 32280

agctgaatga cctggaagcc tgtgtgatac agggggtggg ggtgacagag actcccctga 32340

tgaaggagga ctccattctg gctgtgagga aatacttcca aagaatcact ctctatctga 32400

aagagaagaa atacagccct tgtgcctggg aggttgtcag agcagaaatc atgagatctt 32460

tttctttgtc aacaaacttg caagaaagtt taagaagtaa ggaataagct agcttgactg 32520

actgagatac agcgtacctt cagctcacag acatgataag atacattgat gagtttggac 32580

aaaccacaac tagaatgcag tgaaaaaaat gctttatttg tgaaatttgt gatgctattg 32640

ctttatttgt aaccattata agctgcaata aacaagttaa caacaacaat tgcattcatt 32700

ttatgtttca ggttcagggg gaggtgtggg aggtttttta aagcaagtaa aacctctaca 32760

aatgtggtag tcgtcagcta tcctgcagga acttgtttat ttgaaaatca attcacaaaa 32820

tccgagtagt tattttgcct ccccccttccc atttaacaga atacaccaat ctctccccac 32880

gcacagcttt aaacatttgg ataccattag atatagacat ggttttagat tccacattcc 32940

aaacagtttc agagcgagcc aatctggggt cagtgataga taaaaatcca tcgggatagt 33000

cttttaaagc gctttcacag tccaactgct gcggatgcga ctccggagtc tggatcacgg 33060

tcatctggaa gaagaacgat gggaatcata atccgaaaac ggtatcggac gattgtgtct 33120

catcaaaccc acaagcagcc gctgtctgcg tcgctccgtg cgactgctgt ttatgggatc 33180

agggtccaca gtgtcctgaa gcatgatttt aatagccctt aacatcaact ttctggtgcg 33240

atgcgcgcag caacgcattc tgatttcact caaatctttg cagtaggtac aacacattat 33300

tacaatattg tttaataaac cataattaaa agcgctccag ccaaaactca tatctgatat 33360

aatcgcccct gcatgaccat cataccaaag tttaatataa attaaatgac gttccctcaa 33420

aaacacacta cccacataca tgatctcttt tggcatgtgc atattaacaa tctgtctgta 33480

ccatggacaa cgttggttaa tcatgcaacc caatataacc ttccggaacc acactgccaa 33540

caccgctccc ccagccatgc attgaagtga accctgctga ttacaatgac aatgaagaac 33600

ccaattctct cgaccgtgaa tcacttgaga atgaaaaata tctatagtgg cacaacatag 33660

acataaatgc atgcatcttc tcataatttt taactcctca ggatttagaa acatatccca 33720

gggaatagga agctcttgca gaacagtaaa gctggcagaa caaggaagac cacgaacaca 33780

acttacacta tgcatagtca tagtatcaca atctggcaac agcgggtggt cttcagtcat 33840

agaagctcgg gtttcatttt cctcacaacg tggtaactgg gctctggtgt aagggtgatg 33900

tctggcgcat gatgtcgagc gtgcgcgcaa ccttgtcata atggagttgc ttcctgacat 33960

tctcgtattt tgtatagcaa aacgcggccc tggcagaaca cactcttctt cgccttctat 34020

cctgccgctt agcgtgttcc gtgtgatagt tcaagtacaa ccacactctt aagttggtca 34080

aaagaatgct ggcttcagtt gtaatcaaaa ctccatcgca tctaatcgtt ctgaggaaat 34140

catccaagca atgcaactgg attgtgtttc aagcaggaga ggagagggaa gagacggaag 34200

aaccatgtta atttttattc caaacgatct cgcagtactt caaattgtag atcgcgcaga 34260

tggcatctct cgcccccact gtgttggtga aaaagcacag ctagatcaaa agaaatgcga 34320

ttttcaaggt gctcaacggt ggcttccagc aaagcctcca cgcgcacatc caagaacaaa 34380

agaataccaa aagaaggagc attttctaac tcctcaatca tcatattaca ttcctgcacc 34440

attcccagat aattttcagc tttccagcct tgaattattc gtgtcagttc ttgtggtaaa 34500

tccaatccac acattacaaa caggtcccgg agggcgccct ccaccaccat tcttaaacac 34560

accctcataa tgacaaaata tcttgctcct gtgtcacctg tagcgaattg agaatggcaa 34620

catcaattga catgcccttg gctctaagtt cttctttaag ttctagttgt aaaaactctc 34680

tcatattatc accaaactgc ttagccagaa gccccccggg aacaagagca ggggacgcta 34740

cagtgcagta caagcgcaga cctccccaat tggctccagc aaaaacaaga ttggaataag 34800

catattggga accgccagta atatcatcga agttgctgga aatataatca ggcagagttt 34860

cttgtaaaaa ttgaataaaa gaaaaatttg ccaaaaaaac attcaaaacc tctgggatgc 34920

aaatgcaata ggttaccgcg ctgcgctcca acattgttag ttttgaatta gtctgcaaaa 34980

ataaaaaaaa aaacaagcgt catatcatag tagcctgacg aacagatgga taaatcagtc 35040

tttccatcac aagacaagcc acagggtctc cagctcgacc ctcgtaaaac ctgtcatcat 35100

gattaaacaa cagcaccgaa agttcctcgc ggtgaccagc atgaataatt cttgatgaag 35160

catacaatcc agacatgtta gcatcagtta acgagaaaaa acagccaaca tagcctttgg 35220

gtataattat gcttaatcgt aagtatagca aagccacccc tcgcggatac aaagtaaaag 35280

gcacaggaga ataaaaaata taattatttc tctgctgctg ttcaggcaac gtcgcccccg 35340

gtccctctaa atacacatac aaagcctcat cagccatggc ttaccagaca aagtacagcg 35400

ggcacacaaa gcacaagctc taaagtgact ctccaacctc tccacaatat atatatacac 35460

aagccctaaa ctgacgtaat gggagtaaag tgtaaaaaat cccgccaaac ccaacacaca 35520

ccccgaaact gcgtcaccag ggaaaagtac agtttcactt ccgcaatccc aacaggcgta 35580

acttcctctt tctcacggta cgtgatatcc cactaacttg caacgtcatt ttcccacggt 35640

cgcaccgccc cttttagccg ttaaccccac agccaatcac cacacgatcc acacttttta 35700

aaatcacctc atttacatat tggcaccatt ccatctataa ggtatattat atagataga 35759

<210> 63
<211> 34180
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-617 Genome

<400> 63
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc tggagctgca tcatcttgtt 29400

cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa gccctgactc 29460

gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc agagcctgct 29520

gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg gccagcctcc 29580

caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc gcttcagcgg 29640

aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg aggacgtggc 29700

cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag gcaccaaggt 29760

ggagattaag ggaggggcg gcagcggggg aggcggcagc ggcggcgggg gatcgcaggt 29820

ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca aggtcagctg 29880

caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc aggcgcccgg 29940

ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa attacaatca 30000

gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg cgtacatgga 30060

gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc gccggatcgc 30120

ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc tcgtcacggt 30180

gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg aactggcaag 30240

acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta ctaggtacac 30300

gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat acattaatcc 30360

tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat tgactacaga 30420

caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg actctgcagt 30480

ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg gccaaggcac 30540

cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg gtggcggcgg 30600

atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag gggagaaggt 30660

caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc agcagaagtc 30720

aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg gagtccctgc 30780

tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg gcatggaggc 30840

tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca cgttcggctc 30900

ggggacaaag ttggaaataa accggtaggc tagcttgact gactgagata cagcgtacct 30960

tcagctcaca gacatgataa gatacattga tgagtttgga caaaccacaa ctagaatgca 31020

gtgaaaaaaa tgctttattt gtgaaatttg tgatgctatt gctttatttg taaccattat 31080

aagctgcaat aaacaagtta acaacaacaa ttgcattcat tttatgtttc aggttcaggg 31140

ggaggtgtgg gaggtttttt aaagcaagta aaacctctac aaatgtggta gtcgtcagct 31200

atcctgcagg aacttgttta tttgaaaatc aattcacaaa atccgagtag ttattttgcc 31260

tccccttcc catttaacag aatacaccaa tctctcccca cgcacagctt taaacatttg 31320

gataccatta gatatagaca tggttttaga ttccacattc caaacagttt cagagcgagc 31380

caatctgggg tcagtgatag ataaaaatcc atcgggatag tcttttaaag cgctttcaca 31440

gtccaactgc tgcggatgcg actccggagt ctggatcacg gtcatctgga agaagaacga 31500

tgggaatcat aatccgaaaa cggtatcgga cgattgtgtc tcatcaaacc cacaagcagc 31560

cgctgtctgc gtcgctccgt gcgactgctg tttatgggat cagggtccac agtgtcctga 31620

agcatgattt taatagccct taacatcaac tttctggtgc gatgcgcgca gcaacgcatt 31680

ctgatttcac tcaaatcttt gcagtaggta caacacatta ttacaatatt gtttaataaa 31740

ccataattaa aagcgctcca gccaaaactc atatctgata taatcgcccc tgcatgacca 31800

tcataccaaa gtttaatata aattaaatga cgttccctca aaaacacact acccacatac 31860

atgatctctt ttggcatgtg catattaaca atctgtctgt accatggaca acgttggtta 31920

atcatgcaac ccaatataac cttccggaac cacactgcca acaccgctcc cccagccatg 31980

cattgaagtg aaccctgctg attacaatga caatgaagaa cccaattctc tcgaccgtga 32040

atcacttgag aatgaaaaat atctatagtg gcacaacata gacataaatg catgcatctt 32100

ctcataattt ttaactcctc aggatttaga aacatatccc agggaatagg aagctcttgc 32160

agaacagtaa agctggcaga acaaggaaga ccacgaacac aacttacact atgcatagtc 32220

atagtatcac aatctggcaa cagcgggtgg tcttcagtca tagaagctcg ggtttcattt 32280

tcctcacaac gtggtaactg ggctctggtg taagggtgat gtctggcgca tgatgtcgag 32340

cgtgcgcgca accttgtcat aatggagttg cttcctgaca ttctcgtatt ttgtatagca 32400

aaacgcggcc ctggcagaac acactcttct tcgccttcta tcctgccgct tagcgtgttc 32460

cgtgtgatag ttcaagtaca accacactct taagttggtc aaaagaatgc tggcttcagt 32520

tgtaatcaaa actccatcgc atctaatcgt tctgaggaaa tcatccaagc aatgcaactg 32580

gattgtgttt caagcaggag aggagaggga agagacggaa gaaccatgtt aatttttatt 32640

ccaaacgatc tcgcagtact tcaaattgta gatcgcgcag atggcatctc tcgcccccac 32700

tgtgttggtg aaaaagcaca gctagatcaa aagaaatgcg attttcaagg tgctcaacgg 32760

tggcttccag caaagcctcc acgcgcacat ccaagaacaa aagaatacca aaagaaggag 32820

cattttctaa ctcctcaatc atcatattac attcctgcac cattcccaga taattttcag 32880

ctttccagcc ttgaattatt cgtgtcagtt cttgtggtaa atccaatcca cacattacaa 32940

acaggtcccg gagggcgccc tccaccacca ttcttaaaca caccctcata atgacaaaat 33000

atcttgctcc tgtgtcacct gtagcgaatt gagaatggca acatcaattg acatgccctt 33060

ggctctaagt tcttctttaa gttctagttg taaaaactct ctcatattat caccaaactg 33120

cttagccaga agcccccggg gaacaagagc aggggacgct acagtgcagt acaagcgcag 33180

acctccccaa ttggctccag caaaaacaag attggaataa gcatattggg aaccgccagt 33240

aatatcatcg aagttgctgg aaatataatc aggcagagtt tcttgtaaaa attgaataaa 33300

agaaaaattt gccaaaaaaa cattcaaaac ctctgggatg caaatgcaat aggttaccgc 33360

gctgcgctcc aacattgtta gttttgaatt agtctgcaaa aataaaaaaa aaaacaagcg 33420

tcatatcata gtagcctgac gaacagatgg ataaatcagt ctttccatca caagacaagc 33480

cacagggtct ccagctcgac cctcgtaaaa cctgtcatca tgattaaaca acagcaccga 33540

aagttcctcg cggtgaccag catgaataat tcttgatgaa gcatacaatc cagacatgtt 33600

agcatcagtt aacgagaaaa aacagccaac atagcctttg ggtataatta tgcttaatcg 33660

taagtatagc aaagccaccc ctcgcggata caaagtaaaa ggcacaggag aataaaaaat 33720

ataattattt ctctgctgct gttcaggcaa cgtcgccccc ggtccctcta aatacacata 33780

caaagcctca tcagccatgg cttaccagac aaagtacagc gggcacacaa agcacaagct 33840

ctaaagtgac tctccaacct ctccacaata tatatataca caagccctaa actgacgtaa 33900

tgggagtaaa gtgtaaaaaa tcccgccaaa cccaacacac accccgaaac tgcgtcacca 33960

gggaaaagta cagtttcact tccgcaatcc caacaggcgt aacttcctct ttctcacggt 34020

acgtgatatc ccactaactt gcaacgtcat tttcccacgg tcgcaccgcc ccttttagcc 34080

gttaacccca cagccaatca ccacacgatc cacacttttt aaaatcacct catttacata 34140

ttggcaccat tccatctata aggtatatta tatagataga 34180

<210> 64
<211> 35788
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-618 Genome

<400> 64
tctatctata taatatacct tatagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt tttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgccccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggttttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggt tggagctgta ttattctctt 29400

cctcgtcgcc accgcgaccg gagtgcattc cgagctcgtg atgacccagt caccatcatc 29460

cttgaccgtg actgcgggcg agaaggtcac gatgtcatgc aagtcgtcac aaagcctgct 29520

gaactccggc aatcagaaga attacctgac ctggtaccag cagaaaccgg gtcagccgcc 29580

aaaactgctg atctactggg catccacccg ggaaagcggg gtccctgacc ggttcactgg 29640

atcaggatca ggaaccgact ttaccctcac gatctcaagc gtccaagccg aggacttggc 29700

tgtgtactac tgccaaaatg actactcgta ccccctgact ttcggagctg ggaccaagct 29760

ggagatcaaa ggcggcggag ggtccggagg agggggggtcg ggaggggggg gaagcgaggt 29820

gcagctgctg gaacagagcg gagccgagct ggtgagacca ggcaccagcg tgaaaatctc 29880

gtgcaaggcc tcggggtacg ctttcacgaa ctactggttg ggttgggtga agcagcggcc 29940

gggtcatgga ctggagtgga tcggagacat ctttcccgga agcggaaata tccattacaa 30000

cgaaaagttt aaaggcaagg ccacccttac tgcggataag tcaagctcca ccgcttacat 30060

gcaactgtcc tcactgactt ttgaagacag cgctgtgtat ttctgcgctc gcctgcgcaa 30120

ttgggatgaa cctatggact actggggcca aggaaccacc gtgactgtgt cgtcgggagg 30180

gggaggctca caagtgcagc tgcagcagtc aggtgcagaa ttggccaggc cgggagccag 30240

cgtgaagatg tcgtgcaaag cctccggcta caccttcact cgctacacta tgcattgggt 30300

gaaacagcgg ccgggacaag ggctggagtg gatcggatac atcaatccat caagaggtta 30360

caccaactac aatcagaagt tcaaggacaa ggctaccctg acgactgata agagctcgtc 30420

aactgcatac atgcagctgt cgagcctgac cagcgaggat tccgccgtgt actactgcgc 30480

gagatactat gatgaccact actgcttgga ttactggggc caagggacca ctctgaccgt 30540

gtcctccggc ggaggggget cgggcggcgg gggctcgggg ggcggcggca gcgacatcgt 30600

gctgacgcag agccccgcaa tcatgtcagc ctcccctggc gaaaaagtga cgatgacctg 30660

ctccgcttcc tcatcagtct cctacatgaa ctggtatcaa cagaagagcg gaacctcgcc 30720

gaagcgctgg atctacgata cctccaaact ggccagcgga gtgccggcgc attttcgggg 30780

atcgggcagc ggtacctcct actcgctcac catctcagga atggaagccg aagacgccgc 30840

cacctactac tgccagcagt ggtcctcaaa cccattcacc ttcggatccg gcactaagct 30900

ggaaatcaac cgcgggagcg gagcgactaa cttcagcttg ctcaagcaag ccggagatgt 30960

cgaggagaac ccgggacctg gttggtcgtg catcatccta ttccttgtcg cgaccgcaac 31020

tggcgtccat tccgacatcg tcatgaccca atccccagat tcgctggcgg tgtcgcttgg 31080

ggaacgggca accatcaact gcaagagctc gcagtcactg ctatacagcc ggaatcagaa 31140

aaactacctg gcgtggtacc agcaaaagcc gggtcagcct ccgaagctgc tgattttctg 31200

ggcctcaacc cgggaatccg gagtccctga cagattcagc gggtccggat tcgggaccga 31260

cttcactctg actatttcga gcctgcaagc agaagatgtg gcagtgtact attgccaaca 31320

gtatttttca tacccgctga ccttcggcca gggtacgaag gtggagatca agggtggagg 31380

gggtagcggc gggggaggca gcggcggggg gggaagccag gtgcagctgg tccaatcagg 31440

cgccgaggtc aagaaacctg gagcgtcggt caaggtctcc tgcaagacta gccgctacac 31500

ttttaccgaa tacaccatcc actgggtcag acaggcgccc ggtcagcgcc tggagtggat 31560

cggcgggatc aacccgaata atggaatccc gaactacaat caaaaattca aaggccgcgt 31620

gactatcacc gtggatactt cagcctcaac tgcttacatg gaactgtcat cgctgagatc 31680

agaggacact gcggtctact actgtgcgcg cagaagaatc gcttacggat acgacgaggg 31740

gcacgcaatg gactactggg gacagggaac cctggtgacc gtgtcgtcag gcggaggagg 31800

atcggatgtg cagttggtgc agtcgggcgc cgaagtgaaa aaaccggggg cctcagtgaa 31860

agtgtcctgc aaggcctccg gatacacctt cacccgctac actatgcact gggtcaggca 31920

ggcgcccggg cagggcctgg agtggatcgg gtatatcaac ccgtcaaggg gatacactaa 31980

ctacgccgac tccgtgaagg gaagattcac tatcaccact gacaaatcaa cttcgacggc 32040

gtatatggaa ctgtcatcct tgagatcgga agataccgcg acctactact gtgcgcgcta 32100

ctacgatgac cattactgcc tcgattactg gggacagggc accacggtga ccgtctcatc 32160

aggagaagga acttcaactg gttccggagg ctccggcggc tcaggcggcg ctgacgacat 32220

tgtgctgacc cagagcccgg cgaccctgtc actctcgccg ggggaaaggg ctactctgtc 32280

atgcagagcg tcacaatcgg tctcatacat gaactggtac cagcagaaac cgggcaaggc 32340

tccaaagcgg tggatctacg atacttcgaa ggtggcttca ggagtgccgg ctcgcttcag 32400

cggatccggc tcgggaaccg attacagctt gaccattaac tcgctggagg cggaggatgc 32460

agcgacctac tactgtcaac aatggtcctc gaacccactc acttttgggg gcgggaccaa 32520

ggtggagatt aagtaggcta gcttgactga ctgagataca gcgtaccttc agctcacaga 32580

catgataaga tacattgatg agtttggaca aaccacaact agaatgcagt gaaaaaaatg 32640

ctttatttgt gaaatttgtg atgctattgc tttatttgta accattataa gctgcaataa 32700

acaagttaac aacaacaatt gcattcattt tatgtttcag gttcaggggg aggtgtggga 32760

ggttttttaa agcaagtaaa acctctacaa atgtggtagt cgtcagctat cctgcaggaa 32820

cttgtttatt tgaaaatcaa ttcacaaaat ccgagtagtt attttgcctc ccccttccca 32880

tttaacagaa tacaccaatc tctccccacg cacagcttta aacatttgga taccattaga 32940

tatagacatg gttttagatt ccacattcca aacagtttca gagcgagcca atctggggtc 33000

agtgatagat aaaaatccat cgggatagtc ttttaaagcg ctttcacagt ccaactgctg 33060

cggatgcgac tccggagtct ggatcacggt catctggaag aagaacgatg ggaatcataa 33120

tccgaaaacg gtatcggacg attgtgtctc atcaaaccca caagcagccg ctgtctgcgt 33180

cgctccgtgc gactgctgtt tatgggatca gggtccacag tgtcctgaag catgatttta 33240

atagccctta acatcaactt tctggtgcga tgcgcgcagc aacgcattct gatttcactc 33300

aaatctttgc agtaggtaca acacattatt acaatattgt ttaataaacc ataattaaaa 33360

gcgctccagc caaaactcat atctgatata atcgcccctg catgaccatc ataccaaagt 33420

ttaatataaa ttaaatgacg ttcccctcaaa aacacactac ccacatacat gatctctttt 33480

ggcatgtgca tattaacaat ctgtctgtac catggacaac gttggttaat catgcaaccc 33540

aatataacct tccggaacca cactgccaac accgctcccc cagccatgca ttgaagtgaa 33600

ccctgctgat tacaatgaca atgaagaacc caattctctc gaccgtgaat cacttgagaa 33660

tgaaaaatat ctatagtggc acaacataga cataaatgca tgcatcttct cataattttt 33720

aactcctcag gatttagaaa catatcccag ggaataggaa gctcttgcag aacagtaaag 33780

ctggcagaac aaggaagacc acgaacacaa cttacactat gcatagtcat agtatcacaa 33840

tctggcaaca gcgggtggtc ttcagtcata gaagctcggg tttcattttc ctcacaacgt 33900

ggtaactggg ctctggtgta agggtgatgt ctggcgcatg atgtcgagcg tgcgcgcaac 33960

cttgtcataa tggagttgct tcctgacatt ctcgtatttt gtatagcaaa acgcggccct 34020

ggcagaacac actcttcttc gccttctatc ctgccgctta gcgtgttccg tgtgatagtt 34080

caagtacaac cacactctta agttggtcaa aagaatgctg gcttcagttg taatcaaaac 34140

tccatcgcat ctaatcgttc tgaggaaatc atccaagcaa tgcaactgga ttgtgtttca 34200

agcaggagag gagagggaag agacggaaga accatgttaa tttttattcc aaacgatctc 34260

gcagtacttc aaattgtaga tcgcgcagat ggcatctctc gcccccactg tgttggtgaa 34320

aaagcacagc tagatcaaaa gaaatgcgat tttcaaggtg ctcaacggtg gcttccagca 34380

aagcctccac gcgcacatcc aagaacaaaa gaataccaaa agaaggagca ttttctaact 34440

cctcaatcat catattacat tcctgcacca ttcccagata attttcagct ttccagcctt 34500

gaattattcg tgtcagttct tgtggtaaat ccaatccaca cattacaaac aggtcccgga 34560

gggcgccctc caccaccatt cttaaacaca ccctcataat gacaaaatat cttgctcctg 34620

tgtcacctgt agcgaattga gaatggcaac atcaattgac atgcccttgg ctctaagttc 34680

ttctttaagt tctagttgta aaaactctct catattatca ccaaactgct tagccagaag 34740

ccccccggga acaagagcag gggacgctac agtgcagtac aagcgcagac ctccccaatt 34800

ggctccagca aaaacaagat tggaataagc atattgggaa ccgccagtaa tatcatcgaa 34860

gttgctggaa atataatcag gcagagtttc ttgtaaaaat tgaataaaag aaaaatttgc 34920

caaaaaaaca ttcaaaacct ctgggatgca aatgcaatag gttaccgcgc tgcgctccaa 34980

cattgttagt tttgaattag tctgcaaaaa taaaaaaaaa aacaagcgtc atatcatagt 35040

agcctgacga acagatggat aaatcagtct ttccatcaca agacaagcca cagggtctcc 35100

agctcgaccc tcgtaaaacc tgtcatcatg attaaacaac agcaccgaaa gttcctcgcg 35160

gtgaccagca tgaataattc ttgatgaagc atacaatcca gacatgttag catcagttaa 35220

cgagaaaaaa cagccaacat agcctttggg tataattatg cttaatcgta agtatagcaa 35280

agccacccct cgcggataca aagtaaaagg cacaggagaa taaaaaatat aattatttct 35340

ctgctgctgt tcaggcaacg tcgcccccgg tccctctaaa tacacataca aagcctcatc 35400

agccatggct taccagacaa agtacagcgg gcacacaaag cacaagctct aaagtgactc 35460

tccaacctct ccacaatata tatatacaca agccctaaac tgacgtaatg ggagtaaagt 35520

gtaaaaaatc ccgccaaacc caacacacac cccgaaactg cgtcaccagg gaaaagtaca 35580

gtttcacttc cgcaatccca acaggcgtaa cttcctcttt ctcacggtac gtgatatccc 35640

actaacttgc aacgtcattt tcccacggtc gcaccgcccc ttttagccgt taaccccaca 35700

gccaatcacc acacgatcca cacttttaa aatcacctca tttacatatt ggcaccattc 35760

catctataag gtatattata tagataga 35788

<210> 65
<211> 34972
<212> DNA
<213> Artificial Sequence

<220>
<223> NG-640 - Genome

<400> 65
tctatctata taatatacct atagatgga atggtgccaa tatgtaaatg aggtgatttt 60

aaaaagtgtg gatcgtgtgg tgattggctg tggggttaac ggctaaaagg ggcggtgcga 120

ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt 180

gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg 240

aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa 300

tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg 360

ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt 420

ccgcgtaccg tgtcaaagtc ttctgttttt acgtaggtgt cagctgatcg ctagggtatt 480

tatacctcag ggtttgtgtc aagaggccac tcttgagtgc cagcgagaag agttttctcc 540

tctgcgccgg cagtttaata ataaaaaaat gagagatttg cgatttctgc ctcaggaaat 600

aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga 660

cgatccggag ccacctgtgc agctttttga gcctcctacg cttcaggaac tgtatgattt 720

agaggtagag ggatcggagg attctaatga ggaagctgta aatggctttt ttaccgattc 780

tatgctttta gctgctaatg aagggttaga attagatccg cctttggaca cttttgatac 840

tccaggggta attgtggaaa gcggtacagg tgtaagaaaa ttacctgatt tgagttccgt 900

ggactgtgat ttgcactgct atgaagacgg gtttcctccg agtgatgagg aggaccatga 960

aaaggagcag tccatgcaga ctgcagcggg tgagggagtg aaggctgcca atgttggttt 1020

tcagttggat tgcccggagc ttcctggaca tggctgtaag tcttgtgaat ttcacaggaa 1080

aaatactgga gtaaaggaac tgttatgttc gctttgttat atgagaacgc actgccactt 1140

tatttacagt aagtgtgttt aagttaaaat ttaaaggaat atgctgtttt tcacatgtat 1200

attgagtgtg agttttgtgc ttcttattat aggtcctgtg tctgatgctg atgaatcacc 1260

atctcctgat tctactacct cacctcctga gattcaagca cctgttcctg tggacgtgcg 1320

caagcccatt cctgtgaagc ttaagcctgg gaaacgtcca gcagtggaaa aacttgagga 1380

cttgttacag ggtggggacg gacctttgga cttgagtaca cggaaacgtc caagacaata 1440

agtgttccat atccgtgttt acttaaggtg acgtcaatat ttgtgtgaca gtgcaatgta 1500

ataaaaatat gttaactgtt cactggtttt tattgctttt tgggcgggga ctcaggtata 1560

taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggaggttt 1620

gggccatttt ggaagacctt aggaagacta ggcaactgtt agagaacgct tcggacggag 1680

tctccggttt ttggagattc tggttcgcta gtgaattagc tagggtagtt tttaggataa 1740

aacaggacta taaacaagaa tttgaaaagt tgttggtaga ttgcccagga ctttttgaag 1800

ctcttaattt gggccatcag gttcacttta aagaaaaagt tttatcagtt ttagactttt 1860

caaccccagg tagaactgct gctgctgtgg cttttcttac ttttatatta gataaatgga 1920

tcccgcagac tcatttcagc aggggatacg ttttggattt catagccaca gcattgtgga 1980

gaacatggaa ggttcgcaag atgaggacaa tcttaggtta ctggccagtg cagcctttgg 2040

gtgtagcggg aatcctgagg catccaccgg tcatgccagc ggttctggag gaggaacagc 2100

aagaggacaa cccgagagcc ggcctggacc ctccagtgga ggaggcggag tagctgactt 2160

gtctcctgaa ctgcaacggg tgcttactgg atctacgtcc actggacggg ataggggcgt 2220

taagagggag agggcatcta gtggtactga tgctagatct gagttggctt taagtttaat 2280

gagtcgcaga cgtcctgaaa ccatttggtg gcatgaggtt cagaaagagg gaagggatga 2340

agtttctgta ttgcaggaga aatattcact ggaacaggtg aaaacatgtt ggttggagcc 2400

tgaggatgat tgggaggtgg ccattaaaaa ttatgccaag atagctttga ggcctgataa 2460

acagtataag attactagac ggattaatat ccggaatgct tgttacatat ctggaaatgg 2520

ggctgaggtg gtaatagata ctcaagacaa ggcagttatt agatgctgca tgatggatat 2580

gtggcctggg gtagtcggta tggaagcagt aacttttgta aatgttaagt ttaggggaga 2640

tggttataat ggaatagtgt ttatggccaa taccaaactt atattgcatg gttgtagctt 2700

ttttggtttc aacaatacct gtgtagatgc ctggggacag gttagtgtac ggggatgtag 2760

tttctatgcg tgttggattg ccacagctgg cagaaccaag agtcaattgt ctctgaagaa 2820

atgcatattt caaagatgta acctgggcat tctgaatgaa ggcgaagcaa gggtccgcca 2880

ctgcgcttct acagatactg gatgttttat tttgattaag ggaaatgcca gcgtaaagca 2940

taacatgatt tgcggtgctt ccgatgagag gccttatcaa atgctcactt gtgctggtgg 3000

gcattgtaat atgctggcta ctgtgcatat tgtttcccat caacgcaaaa aatggcctgt 3060

ttttgatcac aatgtgatga cgaagtgtac catgcatgca ggtgggcgta gaggaatgtt 3120

tatgccttac cagtgtaaca tgaatcatgt gaaagtgttg ttggaaccag atgccttttc 3180

cagaatgagc ctaacaggaa tttttgacat gaacatgcaa atctggaaga tcctgaggta 3240

tgatgatacg agatcgaggg tacgcgcatg cgaatgcgga ggcaagcatg ccaggttcca 3300

gccggtgtgt gtagatgtga ctgaagatct cagaccggat catttggtta ttgcccgcac 3360

tggagcagag ttcggatcca gtggagaaga aactgactaa ggtgagtatt gggaaaactt 3420

tggggtggga ttttcagatg gacagattga gtaaaaattt gtttttctg tcttgcagct 3480

gtcatgagtg gaaacgcttc ttttaagggg ggagtcttca gcccttatct gacagggcgt 3540

ctcccatcct gggcaggagt tcgtcagaat gttatgggat ctactgtgga tggaagaccc 3600

gtccaacccg ccaattcttc aacgctgacc tatgctactt taagttcttc acctttggac 3660

gcagctgcag ctgccgccgc cgcttctgtt gccgctaaca ctgtgcttgg aatgggttac 3720

tatggaagca tcatggctaa ttccacttcc tctaataacc cttctaccct gactcaggac 3780

aagttacttg tccttttggc ccagctggag gctttgaccc aacgtctggg tgaactttct 3840

cagcaggtgg tcgagttgcg agtacaaact gagtctgctg tcggcacggc aaagtctaaa 3900

taaaaaaatc ccagaatcaa tgaataaata aacaagcttg ttgttgattt aaaatcaagt 3960

gtttttattt catttttcgc gcacggtatg ccctagacca ccgatctcta tcattgagaa 4020

ctcggtggat tttttccagg atcctataga ggtgggattg aatgtttaga tacatgggca 4080

ttaggccgtc tttggggtgg agatagctcc attgaaggga ttcatgctcc ggggtagtgt 4140

tgtaaatcac ccagtcataa caaggtcgca gtgcatggtg ttgcacaata tcttttagaa 4200

gtaggctgat tgccacagat aagcccttgg tgtaggtgtt tacaaaccgg ttgagctggg 4260

atgggtgcat tcggggtgaa attatgtgca ttttggattg gatttttaag ttggcaatat 4320

tgccgccaag atcccgtctt gggttcatgt tatgaaggac caccaagacg gtgtatccgg 4380

tacatttagg aaatttatcg tgcagcttgg atggaaaagc gtggaaaaat ttggagacac 4440

ccttgtgtcc tccaagattt tccatgcact catccatgat aatagcaatg gggccgtggg 4500

cagcggcgcg ggcaaacacg ttccgtgggt ctgacacatc atagttatgt tcctgagtta 4560

aatcatcata agccatttta atgaatttgg ggcggagagt accagattgg ggtatgaatg 4620

ttccttcggg ccccggagca tagttcccct cacagatttg catttcccaa gctttcagtt 4680

ccgagggtgg aatcatgtcc acctgggggg ctatgaaaaa caccgtttct ggggcggggg 4740

tgattaattg tgatgatagc aaatttctga gcaattgaga tttgccacat ccggtggggc 4800

cataaatgat tccgattacg ggttgcaggt ggtagtttag ggaacggcaa ctgccgtctt 4860

ctcgaagcaa gggggccacc tcgttcatca tttcccttac atgcatattt tcccgcacca 4920

aatccattag gaggcgctct cctcctagtg atagaagttc ttgtagtgag gaaaagtttt 4980

tcagcggttt cagaccgtca gccatgggca ttttggagag agtttgctgc aaaagttcta 5040

gtctgttcca cagttcagtg atgtgttcta tggcatctcg atccagcaga cctcctcgtt 5100

tcgcgggttt ggacggctcc tggaataggg tatgagacga tgggcgtcca gcgctgccag 5160

ggttcggtcc ttccagggtc tcagtgttcg agtcagggtt gtttccgtca cagtgaaggg 5220

gtgtgcgcct gcttgggcgc ttgccagggt gcgcttcaga ctcatcctgc tggtcgaaaa 5280

cttctgtcgc ttggcgccct gtatgtcggc caagtagcag tttaccatga gttcgtagtt 5340

gagcgcctcg gctgcgtggc ctttggcgcg gagcttacct ttggaagttt tcttgcatac 5400

cgggcagtat aggcatttca gcgcatacaa cttgggcgca aggaaaacgg attctgggga 5460

gtatgcatct gcgccgcagg aggcgcaaac agtttcacat tccaccagcc aggttaaatc 5520

cggttcattg gggtcaaaaa caagttttcc gccatatttt ttgatgcgtt tcttaccttt 5580

ggtctccatg agttcgtgtc ctcgttgagt gacaaacagg ctgtccgtgt ccccgtagac 5640

tgattttaca ggcctcttct ccagtggagt gcctcggtct tcttcgtaca ggaactctga 5700

ccactctgat acaaaggcgc gcgtccaggc cagcacaaag gaggctatgt gggaggggta 5760

gcgatcgttg tcaaccaggg ggtccacctt ttccaaagta tgcaaacaca tgtcaccctc 5820

ttcaacatcc aggaatgtga ttggcttgta ggtgtatttc acgtgacctg gggtccccgc 5880

tgggggggta taaaaggggg cggttctttg ctcttcctca ctgtcttccg gatcgctgtc 5940

caggaacgtc agctgttggg gtaggtattc cctctcgaag gcgggcatga cctctgcact 6000

caggttgtca gtttctaaga acgaggagga tttgatattg acagtgccgg ttgagatgcc 6060

tttcatgagg ttttcgtcca tctggtcaga aaacacaatt tttttattgt caagtttggt 6120

ggcaaatgat ccatacaggg cgttggataa aagtttggca atggatcgca tggtttggtt 6180

cttttccttg tccgcgcgct ctttggcggc gatgttgagt tggacatact cgcgtgccag 6240

gcacttccat tcggggaaga tagttgttaa ttcatctggc acgattctca cttgccaccc 6300

tcgattatgc aaggtaatta aatccacact ggtggccacc tcgcctcgaa ggggttcatt 6360

ggtccaacag agcctacctc ctttcctaga acagaaaggg ggaagtgggt ctagcataag 6420

ttcatcggga gggtctgcat ccatggtaaa gattcccgga agtaaatcct tatcaaaata 6480

gctgatggga gtggggtcat ctaaggccat ttgccattct cgagctgcca gtgcgcgctc 6540

atatgggtta aggggactgc cccatggcat gggatgggtg agtgcagagg catacatgcc 6600

acagatgtca tagacgtaga tgggatcctc aaagatgcct atgtaggttg gatagcatcg 6660

ccccccctctg atacttgctc gcacatagtc atatagttca tgtgatggcg ctagcagccc 6720

cggacccaag ttggtgcgat tgggtttttc tgttctgtag acgatctggc gaaagatggc 6780

gtgagaattg gaagagatgg tgggtctttg aaaaatgttg aaatgggcat gaggtagacc 6840

tacagagtct ctgacaaagt gggcataaga ttcttgaagc ttggttacca gttcggcggt 6900

gacaagtacg tctagggcgc agtagtcaag tgtttcttga atgatgtcat aacctggttg 6960

gtttttcttt tcccacagtt cgcggttgag aaggtattct tcgcgatcct tccagtactc 7020

ttctagcgga aacccgtctt tgtctgcacg gtaagatcct agcatgtaga actgattaac 7080

tgccttgtaa gggcagcagc ccttctctac gggtagagag tatgcttgag cagcttttcg 7140

tagcgaagcg tgagtaaggg caaaggtgtc tctgaccatg actttgagga attggtattt 7200

gaagtcgatg tcgtcacagg ctccctgttc ccagagttgg aagtctaccc gtttcttgta 7260

ggcggggttg ggcaaagcga aagtaacatc attgaagaga atcttgccgg ccctgggcat 7320

gaaattgcga gtgatgcgaa aaggctgtgg tacttccgct cggttattga taacctgggc 7380

agctaggacg atctcgtcga aaccgttgat gttgtgtcct acgatgtata attctatgaa 7440

acgcggcgtg cctctgacgt gaggtagctt actgagctca tcaaaggtta ggtctgtggg 7500

gtcagataag gcgtagtgtt cgagagccca ttcgtgcagg tgaggattcg ctttaaggaa 7560

ggaggaccag aggtccactg ccagtgctgt ttgtaactgg tcccggtact gacgaaaatg 7620

ccgtccgact gccatttttt ctggggtgac gcaatagaag gtttgggggt cctgccgcca 7680

gcgatcccac ttgagtttta tggcgaggtc ataggcgatg ttgacgagcc gctggtctcc 7740

agagagtttc atgaccagca tgaaggggat tagctgcttg ccaaaggacc ccatccaggt 7800

gtaggtttcc acatcgtagg tgagaaagag cctttctgtg cgaggatgag agccaatcgg 7860

gaagaactgg atctcctgcc accagttgga ggaatggctg ttgatgtgat ggaagtagaa 7920

ctccctgcga cgcgccgagc attcatgctt gtgcttgtac agacggccgc agtagtcgca 7980

gcgttgcacg ggttgtatct cgtgaatgag ttgtacctgg cttcccttga cgagaaattt 8040

cagtgggaag ccgaggcctg gcgattgtat ctcgtgcttt actatgttgt ctgcatcggc 8100

ctgttcatct tctgtctcga tggtggtcat gctgacgagc cctcgcggga ggcaagtcca 8160

gacctcggcg cggcaggggc ggagctcgag gacgagagcg cgcaggctgg agctgtccag 8220

ggtcctgaga cgctgcggac tcaggttagt aggcagtgtc aggagattaa cttgcatgat 8280

cttttggagg gcgtgcggga ggttcagata gtacttgatc tcaacgggtc cgttggtgga 8340

gatgtcgatg gcttgcaggg ttccgtgtcc cttgggcgct accaccgtgc ccttgttttt 8400

cattttggac ggcggtggct ctgttgcttc ttgcatgttt agaagcggtg tcgagggcgc 8460

gcaccgggcg gcaggggcgg ctcgggaccc ggcggcatgg ctggcagtgg tacgtcggcg 8520

ccgcgcgcgg gtaggttctg gtactgcgcc ctgagaagac tcgcatgcgc gacgacgcgg 8580

cggttgacat cctggatctg acgcctctgg gtgaaagcta ccggccccgt gagcttgaac 8640

ctgaaagaga gttcaacaga atcaatctcg gtatcgttga cggcggcttg cctaaggatt 8700

tcttgcacgt caccagagtt gtcctggtag gcgatctccg ccatgaactg ctcgatctct 8760

tcctcttgaa gatctccgcg gcccgctctc tcgacggtgg ccgcgaggtc gttggagatg 8820

cgcccaatga gttgagagaa tgcattcatg cccgcctcgt tccagacgcg gctgtagacc 8880

acggccccca cgggatctct cgcgcgcatg accacctggg cgaggttgag ctccacgtgg 8940

cgggtgaaga ccgcatagtt gcataggcgc tggaaaaggt agttgagtgt ggtggcgatg 9000

tgctcggtga cgaagaaata catgatccat cgtctcagcg gcatctcgct gacatcgccc 9060

agagcttcca agcgctccat ggcctcgtag aagtccacgg caaaattaaa aaactgggag 9120

tttcgcgcgg acacggtcaa ctcctcttcc agaagacgga taagttcggc gatggtggtg 9180

cgcacctcgc gctcgaaagc ccctgggatt tcttcctcaa tctcttcttc ttccactaac 9240

atctcttcct cttcaggtgg ggctgcagga ggagggggaa cgcggcgacg ccggcggcgc 9300

acgggcagac ggtcgatgaa tctttcaatg acctctccgc ggcggcggcg catggtttca 9360

gtgacggcgc ggccgttctc gcgcggtcgc agagtaaaaa caccgccgcg catctcctta 9420

aagtggtgac tgggaggttc tccgtttggg agggagaggg cgctgattat acattttatt 9480

aattggcccg tagggactgc acgcagagat ctgatcgtgt caagatccac gggatctgaa 9540

aacctttcga cgaaagcgtc taaccagtca cagtcacaag gtaggctgag tacggcttct 9600

tgtgggcggg ggtggttatg tgttcggtct gggtcttctg tttcttcttc atctcgggaa 9660

ggtgagacga tgctgctggt gatgaaatta aagtaggcag ttctaagacg gcggatggtg 9720

gcgaggagca ccaggtcttt gggtccggct tgctggatac gcaggcgatt ggccattccc 9780

caagcattat cctgacatct agcaagatct ttgtagtagt cttgcatgag ccgttctacg 9840

ggcacttctt cctcacccgt tctgccatgc atacgtgtga gtccaaatcc gcgcattggt 9900

tgtaccagtg ccaagtcagc tacgactctt tcggcgagga tggcttgctg tacttgggta 9960

agggtggctt gaaagtcatc aaaatccaca aagcggtggt aagctcctgt attaatggtg 10020

taagcacagt tggccatgac tgaccagtta actgtctggt gaccagggcg cacgagctcg 10080

gtgtatttaa ggcgcgaata ggcgcgggtg tcaaagatgt aatcgttgca ggtgcgcacc 10140

agatactggt accctataag aaaatgcggc ggtggttggc ggtagagagg ccatcgttct 10200

gtagctggag cgccaggggc gaggtcttcc aacataaggc ggtgatagcc gtagatgtac 10260

ctggacatcc aggtgattcc tgcggcggta gtagaagccc gaggaaactc gcgtacgcgg 10320

ttccaaatgt tgcgtagcgg catgaagtag ttcattgtag gcacggtttg accagtgagg 10380

cgcgcgcagt cattgatgct ctatagacac ggagaaaatg aaagcgttca gcgactcgac 10440

tccgtagcct ggaggaacgt gaacgggttg ggtcgcggtg taccccggtt cgagacttgt 10500

actcgagccg gccggagccg cggctaacgt ggtattggca ctcccgtctc gacccagcct 10560

acaaaaatcc aggatacgga atcgagtcgt tttgctggtt tccgaatggc agggaagtga 10620

gtcctatttt ttttttttgc cgctcagatg catcccgtgc tgcgacagat gcgcccccaa 10680

caacagcccc cctcgcagca gcagcagcag caatcacaaa aggctgtccc tgcaactact 10740

gcaactgccg ccgtgagcgg tgcgggacag cccgcctatg atctggactt ggaagagggc 10800

gaaggactgg cacgtctagg tgcgccttca cccgagcggc atccgcgagt tcaactgaaa 10860

aaagattctc gcgaggcgta tgtgccccaa cagaacctat ttagagacag aagcggcgag 10920

gagccggagg agatgcgagc ttcccgcttt aacgcgggtc gtgagctgcg tcacggtttg 10980

gaccgaagac gagtgttgcg ggacgaggat ttcgaagttg atgaaatgac agggatcagt 11040

cctgccaggg cacacgtggc tgcagccaac cttgtatcgg cttacgagca gacagtaaag 11100

gaagagcgta acttccaaaa gtcttttaat aatcatgtgc gaaccctgat tgcccgcgaa 11160

gaagttaccc ttggtttgat gcatttgtgg gatttgatgg aagctatcat tcagaaccct 11220

actagcaaac ctctgaccgc ccagctgttt ctggtggtgc aacacagcag agacaatgag 11280

gctttcagag aggcgctgct gaacatcacc gaacccgagg ggagatggtt gtatgatctt 11340

atcaacattc tacagagtat catagtgcag gagcggagcc tgggcctggc cgagaaggtg 11400

gctgccatca attactcggt tttgagcttg ggaaaatatt acgctcgcaa aatctacaag 11460

actccatacg ttcccataga caaggaggtg aagatagatg ggttctacat gcgcatgacg 11520

ctcaaggtct tgaccctgag cgatgatctt ggggtgtatc gcaatgacag aatgcatcgc 11580

gcggttagcg ccagcaggag gcgcgagtta agcgacaggg aactgatgca cagtttgcaa 11640

agagctctga ctggagctgg aaccgagggt gagaattact tcgacatggg agctgacttg 11700

cagtggcagc ctagtcgcag ggctctgagc gccgcgacgg caggatgtga gcttccttac 11760

atagaagagg cggatgaagg cgaggaggaa gagggcgagt acttggaaga ctgatggcac 11820

aacccgtgtt ttttgctaga tggaacagca agcaccggat cccgcaatgc gggcggcgct 11880

gcagagccag ccgtccggca ttaactcctc ggacgattgg acccaggcca tgcaacgtat 11940

catggcgttg acgactcgca accccgaagc ctttagacag caaccccagg ccaaccgtct 12000

atcggccatc atggaagctg tagtgccttc ccgctctaat cccactcatg agaaggtcct 12060

ggccatcgtg aacgcgttgg tggagaacaa agctattcgt ccagatgagg ccggactggt 12120

atacaacgct ctcttagaac gcgtggctcg ctacaacagt agcaatgtgc aaaccaattt 12180

ggaccgtatg ataacagatg tacgcgaagc cgtgtctcag cgcgaaaggt tccagcgtga 12240

tgccaacctg ggttcgctgg tggcgttaaa tgctttcttg agtactcagc ctgctaatgt 12300

gccgcgtggt caacaggatt atactaactt tttaagtgct ttgagactga tggtatcaga 12360

agtacctcag agcgaagtgt atcagtccgg tcctgattac ttctttcaga ctagcagaca 12420

gggcttgcag acggtaaatc tgagccaagc ttttaaaaac cttaaaggtt tgtggggagt 12480

gcatgccccg gtaggagaaa gagcaaccgt gtctagcttg ttaactccga actcccgcct 12540

attattactg ttggtagctc ctttcaccga cagcggtagc atcgaccgta attcctattt 12600

gggttaccta ctaaacctgt atcgcgaagc catagggcaa agtcaggtgg acgagcagac 12660

ctatcaagaa attacccaag tcagtcgcgc tttgggacag gaagacactg gcagtttgga 12720

agccactctg aacttcttgc ttaccaatcg gtctcaaaag atccctcctc aatatgctct 12780

tactgcggag gaggagagga tccttagata tgtgcagcag agcgtgggat tgtttctgat 12840

gcaagagggg gcaactccga ctgcagcact ggacatgaca gcgcgaaata tggagcccag 12900

catgtatgcc agtaaccgac ctttcattaa caaactgctg gactacttgc acagagctgc 12960

cgctatgaac tctgattatt tcaccaatgc catcttaaac ccgcactggc tgcccccacc 13020

tggtttctac acgggcgaat atgacatgcc cgaccctaat gacggatttc tgtgggacga 13080

cgtggacagc gatgtttttt cacctctttc tgatcatcgc acgtggaaaa aggaaggcgg 13140

cgatagaatg cattcttctg catcgctgtc cggggtcatg ggtgctaccg cggctgagcc 13200

cgagtctgca agtccttttc ctagtctacc cttttctcta cacagtgtac gtagcagcga 13260

agtgggtaga ataagtcgcc cgagtttaat gggcgaagag gagtatctaa acgattcctt 13320

gctcagaccg gcaagagaaa aaaatttccc aaacaatgga atagaaagtt tggtggataa 13380

aatgagtaga tggaagactt atgctcagga tcacagagac gagcctggga tcatggggat 13440

tacaagtaga gcgagccgta gacgccagcg ccatgacaga cagaggggtc ttgtgtggga 13500

cgatgaggat tcggccgatg atagcagcgt gctggacttg ggtgggagag gaaggggcaa 13560

cccgtttgct catttgcgcc ctcgcttggg tggtatgttg taaaaaaaaa taaaaaaaaa 13620

actcaccaag gccatggcga cgagcgtacg ttcgttcttc tttattatct gtgtctagta 13680

taatgaggcg agtcgtgcta ggcggagcgg tggtgtatcc ggagggtcct cctccttcgt 13740

acgagagcgt gatgcagcag cagcaggcga cggcggtgat gcaatcccca ctggaggctc 13800

cctttgtgcc tccgcgatac ctggcaccta cggagggcag aaacagcatt cgttattcgg 13860

aactggcacc tcagtacgat accaccaggt tgtatctggt ggacaacaag tcggcggaca 13920

ttgcttctct gaactatcag aatgaccaca gcaacttctt gaccacggtg gtgcaaaaca 13980

atgactttac ccctacggaa gccagcaccc agaccattaa ctttgatgaa cgatcgcggt 14040

ggggcggtca gctaaagacc atcatgcata ctaacatgcc aaacgtgaac gagtatatgt 14100

ttagtaacaa gttcaaagcg cgtgtgatgg tgtccagaaa acctcccgac ggtgctgcag 14160

ttggggatac ttatgatcac aagcaggata ttttgaaata tgagtggttc gagtttactt 14220

tgccagaagg caacttttca gttactatga ctattgattt gatgaacaat gccatcatag 14280

ataattactt gaaagtgggt agacagaatg gagtgcttga aagtgacatt ggtgttaagt 14340

tcgacaccag gaacttcaag ctgggatggg atcccgaaac caagttgatc atgcctggag 14400

tgtatacgta tgaagccttc catcctgaca ttgtcttact gcctggctgc ggagtggatt 14460

ttaccgagag tcgtttgagc aaccttcttg gtatcagaaa aaaacagcca tttcaagagg 14520

gttttaagat tttgtatgaa gatttagaag gtggtaatat tccggccctc ttggatgtag 14580

atgcctatga gaacagtaag aaagaacaaa aagccaaaat agaagctgct acagctgctg 14640

cagaagctaa ggcaaacata gttgccagcg actctacaag ggttgctaac gctggagagg 14700

tcagaggaga caattttgcg ccaacacctg ttccgactgc agaatcatta ttggccgatg 14760

tgtctgaagg aacggacgtg aaactcacta ttcaacctgt agaaaaagat agtaagaata 14820

gaagctataa tgtgttggaa gacaaaatca acacagccta tcgcagttgg tatctttcgt 14880

acaattatgg cgatcccgaa aaaggagtgc gttcctggac attgctcacc acctcagatg 14940

tcacctgcgg agcagagcag gtctactggt cgcttccaga catgatgaag gatcctgtca 15000

ctttccgctc cactagacaa gtcagtaact accctgtggt gggtgcagag cttatgcccg 15060

tcttctcaaa gagcttctac aacgaacaag ctgtgtactc ccagcagctc cgccagtcca 15120

cctcgcttac gcacgtcttc aaccgctttc ctgagaacca gattttaatc cgtccgccgg 15180

cgcccaccat taccaccgtc agtgaaaacg ttcctgctct cacagatcac gggaccctgc 15240

cgttgcgcag cagtatccgg ggagtccaac gtgtgaccgt tactgacgcc agacgccgca 15300

cctgtcccta cgtgtacaag gcactgggca tagtcgcacc gcgcgtcctt tcaagccgca 15360

ctttctaaaa aaaaaaaaaa tgtccattct tatctcgccc agtaataaca ccggttgggg 15420

tctgcgcgct ccaagcaaga tgtacggagg cgcacgcaaa cgttctaccc aacatcctgt 15480

ccgtgttcgc ggacattttc gcgctccatg gggcgccctc aagggccgca ctcgcgttcg 15540

aaccaccgtc gatgatgtaa tcgatcaggt ggttgccgac gcccgtaatt atactcctac 15600

tgcgcctaca tctactgtgg atgcagttat tgacagtgta gtggctgacg ctcgcaacta 15660

tgctcgacgt aagagccggc gaaggcgcat tgccagacgc caccgagcta ccactgccat 15720

gcgagccgca agagctctgc tacgaagagc tagacgcgtg gggcgaagag ccatgcttag 15780

ggcggccaga cgtgcagctt cgggcgccag cgccggcagg tcccgcaggc aagcagccgc 15840

tgtcgcagcg gcgactattg ccgacatggc ccaatcgcga agaggcaatg tatactgggt 15900

gcgtgacgct gccaccggtc aacgtgtacc cgtgcgcacc cgtccccctc gcacttagaa 15960

gatactgagc agtctccgat gttgtgtccc agcggcgagg atgtccaagc gcaaatacaa 16020

ggaagaaatg ctgcaggtta tcgcacctga agtctacggc caaccgttga aggatgaaaa 16080

aaaaccccgc aaaatcaagc gggttaaaaa ggacaaaaaa gaagaggaag atggcgatga 16140

tgggctggcg gagtttgtgc gcgagtttgc cccacggcga cgcgtgcaat ggcgtgggcg 16200

caaagttcga catgtgttga gacctggaac ttcggtggtc tttacacccg gcgagcgttc 16260

aagcgctact tttaagcgtt cctatgatga ggtgtacggg gatgatgata ttcttgagca 16320

ggcggctgac cgattaggcg agtttgctta tggcaagcgt agtagaataa cttccaagga 16380

tgagacagtg tcgataccct tggatcatgg aaatcccacc cctagtctta aaccggtcac 16440

tttgcagcaa gtgttacccg taactccgcg aacaggtgtt aaacgcgaag gtgaagattt 16500

gtatcccact atgcaactga tggtacccaa acgccagaag ttggaggacg ttttggagaa 16560

agtaaaagtg gatccagata ttcaacctga ggttaaagtg agacccatta agcaggtagc 16620

gcctggtctg ggggtacaaa ctgtagacat taagattccc actgaaagta tggaagtgca 16680

aactgaaccc gcaaagccta ctgccacctc cactgaagtg caaacggatc catggatgcc 16740

catgcctatt acaactgacg ccgccggtcc cactcgaaga tcccgacgaa agtacggtcc 16800

agcaagtctg ttgatgccca attatgttgt acacccatct attattccta ctcctggtta 16860

ccgaggcact cgctactatc gcagccgaaa cagtacctcc cgccgtcgcc gcaagacacc 16920

tgcaaatcgc agtcgtcgcc gtagacgcac aagcaaaccg actcccggcg ccctggtgcg 16980

gcaagtgtac cgcaatggta gtgcggaacc tttgacactg ccgcgtgcgc gttaccatcc 17040

gagtatcatc acttaatcaa tgttgccgct gcctccttgc agatatggcc ctcacttgtc 17100

gccttcgcgt tcccatcact ggttaccgag gaagaaactc gcgccgtaga agagggatgt 17160

tgggacgcgg aatgcgacgc tacaggcgac ggcgtgctat ccgcaagcaa ttgcggggtg 17220

gtttttacc agccttaatt ccaattatcg ctgctgcaat tggcgcgata ccaggcatag 17280

cttccgtggc ggttcaggcc tcgcaacgac attgacattg gaaaaaaacg tataaataaa 17340

aaaaaaaaaa tacaatggac tctgacactc ctggtcctgt gactatgttt tcttagagat 17400

ggaagacatc aatttttcat ccttggctcc gcgacacggc acgaagccgt acatgggcac 17460

ctggagcgac atcggcacga gccaactgaa cgggggcgcc ttcaattgga gcagtatctg 17520

gagcgggctt aaaaattttg gctcaaccat aaaaacatac gggaacaaag cttggaacag 17580

cagtacagga caggcgctta gaaataaact taaagaccag aacttccaac aaaaagtagt 17640

cgatgggata gcttccggca tcaatggagt ggtagatttg gctaaccagg ctgtgcagaa 17700

aaagataaac agtcgtttgg acccgccgcc agcaacccca ggtgaaatgc aagtggagga 17760

agaaattcct ccgccagaaa aacgaggcga caagcgtccg cgtcccgatt tggaagagac 17820

gctggtgacg cgcgtagatg aaccgccttc ttatgaggaa gcaacgaagc ttggaatgcc 17880

caccactaga ccgatagccc caatggccac cggggtgatg aaaccttctc agttgcatcg 17940

acccgtcacc ttggatttgc cccctccccc tgctgctact gctgtacccg cttctaagcc 18000

tgtcgctgcc ccgaaaccag tcgccgtagc caggtcacgt cccgggggcg ctcctcgtcc 18060

aaatgcgcac tggcaaaata ctctgaacag catcgtgggt ctaggcgtgc aaagtgtaaa 18120

acgccgtcgc tgcttttaat taaatatgga gtagcgctta acttgcctat ctgtgtatat 18180

gtgtcattac acgccgtcac agcagcagag gaaaaaagga agaggtcgtg cgtcgacgct 18240

gagttacttt caagatggcc accccatcga tgctgcccca atgggcatac atgcacatcg 18300

ccggacagga tgcttcggag tacctgagtc cgggtctggt gcagttcgcc cgcgccacag 18360

acacctactt caatctggga aataagttta gaaatcccac cgtagcgccg acccacgatg 18420

tgaccaccga ccgtagccag cggctcatgt tgcgcttcgt gcccgttgac cgggaggaca 18480

atacatactc ttacaaagtg cggtacaccc tggccgtggg cgacaacaga gtgctggata 18540

tggccagcac gttctttgac attaggggtg tgttggacag aggtcccagt ttcaaaccct 18600

attctggtac ggcttacaac tccctggctc ctaaaggcgc tccaaataca tctcagtgga 18660

ttgcagaagg tgtaaaaaat acaactggtg aggaacacgt aacagaagag gaaaccaata 18720

ctactactta cacttttggc aatgctcctg taaaagctga agctgaaatt acaaaagaag 18780

gactcccagt aggtttggaa gtttcagatg aagaaagtaa accgatttat gctgataaaa 18840

catatcagcc agaacctcag ctgggagatg aaacttggac tgaccttgat ggaaaaaccg 18900

aaaagtatgg aggcagggct ctcaaacccg atactaagat gaaaccatgc tacgggtcct 18960

ttgccaaacc tactaatgtg aaaggcggtc aggcaaaaca aaaaacaacg gagcagccaa 19020

atcagaaagt cgaatatgat atcgacatgg agtttttga tgcggcatcg cagaaaacaa 19080

acttaagtcc taaaattgtc atgtatgcag aaaatgtaaa tttggaaact ccagacactc 19140

atgtagtgta caaacctgga acagaagaca caagttccga agctaatttg ggacaacaat 19200

ctatgcccaa cagacccaac tacattggct tcagagataa ctttattgga cttatgtact 19260

ataacagtac tggtaacatg ggggtgctgg ctggtcaagc gtctcagtta aatgcagtgg 19320

ttgacttgca ggacagaaac acagaacttt cttaccaact cttgcttgac tctctgggcg 19380

acagaaccag atactttagc atgtggaatc aggctgtgga cagttatgat cctgatgtac 19440

gtgttattga aaatcatggt gtggaagatg aacttcccaa ctactgtttt ccactggacg 19500

gcataggtgt tccaacaacc agttacaaat caatagttcc aaatggagac aatgcgccta 19560

attggaagga acctgaagta aatggaacaa gtgagatcgg acagggtaat ttgtttgcca 19620

tggaaattaa ccttcaagcc aatctatggc gaagtttcct ttattccaat gtggctctat 19680

atctcccaga ctcgtacaaa tacaccccgt ccaatgtcac tcttccagaa aacaaaaaca 19740

cctacgacta catgaacggg cgggtggtgc cgccatctct agtagacacc tatgtgaaca 19800

ttggtgccag gtggtctctg gatgccatgg acaatgtcaa cccattcaac caccaccgta 19860

acgctggctt gcgttaccga tccatgcttc tgggtaacgg acgttatgtg cctttccaca 19920

tacaagtgcc tcaaaaattc ttcgctgtta aaaacctgct gcttctccca ggctcctaca 19980

cttatgagtg gaactttagg aaggatgtga acatggttct acagagttcc ctcggtaacg 20040

acctgcgggt agatggcgcc agcatcagtt tcacgagcat caacctctat gctacttttt 20100

tccccatggc tcacaacacc gcttccaccc ttgaagccat gctgcggaat gacaccaatg 20160

atcagtcatt caacgactac ctatctgcag ctaacatgct ctaccccatt cctgccaatg 20220

caaccaatat tcccatttcc attccttctc gcaactgggc ggctttcaga ggctggtcat 20280

ttaccagact gaaaaccaaa gaaactccct ctttggggtc tggatttgac ccctactttg 20340

tctattctgg ttctattccc tacctggatg gtaccttcta cctgaaccac acttttaaga 20400

aggtttccat catgtttgac tcttcagtga gctggcctgg aaatgacagg ttactatctc 20460

ctaacgaatt tgaaataaag cgcactgtgg atggcgaagg ctacaacgta gcccaatgca 20520

acatgaccaa agactggttc ttggtacaga tgctcgccaa ctacaacatc ggctatcagg 20580

gcttctacat tccagaagga tacaaagatc gcatgtattc atttttcaga aacttccagc 20640

ccatgagcag gcaggtggtt gatgaggtca attacaaaga cttcaaggcc gtcgccatac 20700

cctaccaaca caacaactct ggctttgtgg gttacatggc tccgaccatg cgccaaggtc 20760

aaccctatcc cgctaactat ccctatccac tcattggaac aactgccgta aatagtgtta 20820

cgcagaaaaa gttcttgtgt gacagaacca tgtggcgcat accgttctcg agcaacttca 20880

tgtctatggg ggcccttaca gacttgggac agaatatgct ctatgccaac tcagctcatg 20940

ctctggacat gacctttgag gtggatccca tggatgagcc caccctgctt tatcttctct 21000

tcgaagtttt cgacgtggtc agagtgcatc agccacaccg cggcatcatc gaggcagtct 21060

acctgcgtac accgttctcg gccggtaacg ctaccacgta agaagcttct tgcttcttgc 21120

aaatagcagc tgcaaccatg gcctgcggat cccaaaacgg ctccagcgag caagagctca 21180

gagccattgt ccaagacctg ggttgcggac cctatttttt gggaacctac gataagcgct 21240

tcccggggtt catggccccc gataagctcg cctgtgccat tgtaaatacg gccggacgtg 21300

agacgggggg agagcactgg ttggctttcg gttggaaccc acgttctaac acctgctacc 21360

tttttgatcc ttttggattc tcggatgatc gtctcaaaca gatttaccag tttgaatatg 21420

agggtctcct gcgccgcagc gctcttgcta ccaaggaccg ctgtattacg ctggaaaaat 21480

ctacccagac cgtgcagggt ccccgttctg ccgcctgcgg acttttctgc tgcatgttcc 21540

ttcacgcctt tgtgcactgg cctgaccgtc ccatggacgg aaaccccacc atgaaattgc 21600

taactggagt gccaaacaac atgcttcatt ctcctaaagt ccagcccacc ctgtgtgaca 21660

atcaaaaagc actctaccat tttcttaata cccattcgcc ttattttcgc tcccatcgta 21720

cacacatcga aagggccact gcgttcgacc gtatggatgt tcaataatga ctcatgtaaa 21780

caacgtgttc aataaacatc actttatttt tttacatgta tcaaggctct gcattactta 21840

tttatttaca agtcgaatgg gttctgacga gaatcagaat gacccgcagg cagtgatacg 21900

ttgcggaact gatacttggg ttgccacttg aattcgggaa tcaccaactt gggaaccggt 21960

atatcgggca ggatgtcact ccacagcttt ctggtcagct gcaaagctcc aagcaggtca 22020

ggagccgaaa tcttgaaatc acaattagga ccagtgcttt gagcgcgaga gttgcggtac 22080

accggattgc agcactgaaa caccatcagc gacggatgtc tcacgcttgc cagcacggtg 22140

ggatctgcaa tcatgcccac atccagatct tcagcattgg caatgctgaa cggggtcatc 22200

ttgcaggtct gcctacccat ggcgggcacc caattaggct tgtggttgca atcgcagtgc 22260

agggggatca gtatcatctt ggcctgatcc tgtctgattc ctggatacac ggctctcatg 22320

aaagcatcat attgcttgaa agcctgctgg gctttactac cctcggtata aaacatcccg 22380

caggacctgc tcgaaaactg gttagctgca cagccggcat cattcacaca gcagcgggcg 22440

tcattgttag ctatttgcac cacacttctg ccccagcggt tttgggtgat tttggttcgc 22500

tcgggattct cctttaaggc tcgttgtccg ttctcgctgg ccacatccat ctcgataatc 22560

tgctccttct gaatcataat attgccatgc aggcacttca gcttgccctc ataatcattg 22620

cagccatgag gccacaacgc acagcctgta cattcccaat tatggtgggc gatctgagaa 22680

aaagaatgta tcattccctg cagaaatctt cccatcatcg tgctcagtgt cttgtgacta 22740

gtgaaagtta actggatgcc tcggtgctcc tcgtttacgt actggtgaca gatgcgcttg 22800

tattgttcgt gttgctcagg cattagttta aaagaggttc taagttcgtt atccagcctg 22860

tacttctcca tcagcagaca catcacttcc atgcctttct cccaagcaga caccaggggc 22920

aagctaatcg gattcttaac agtgcaggca gcagctcctt tagccagagg gtcatcttta 22980

gcgatcttct caatgcttct tttgccatcc ttctcaacga tgcgcacggg cgggtagctg 23040

aaacccactg ctacaagttg cgcctcttct ctttcttctt cgctgtcttg actgatgtct 23100

tgcatgggga tatgtttggt cttccttggc ttctttttgg ggggtatcgg aggaggagga 23160

ctgtcgctcc gttccggaga cagggaggat tgtgacgttt cgctcaccat taccaactga 23220

ctgtcggtag aagaacctga ccccacacgg cgacaggtgt ttctcttcgg gggcagaggt 23280

ggaggcgatt gcgaagggct gcggtccgac ctggaaggcg gatgactggc agaacccctt 23340

ccgcgttcgg gggtgtgctc cctgtggcgg tcgcttaact gatttccttc gcggctggcc 23400

attgtgttct cctaggcaga gaaacaacag acatggaaac tcagccattg ctgtcaacat 23460

cgccacgagt gccatcacat ctcgtcctca gcgacgagga aaaggagcag agcttaagca 23520

ttccaccgcc cagtcctgcc accacctcta ccctagaaga taaggaggtc gacgcatctc 23580

atgacatgca gaataaaaaa gcgaaagagt ctgagacaga catcgagcaa gacccgggct 23640

atgtgacacc ggtggaacac gaggaagagt tgaaacgctt tctagagaga gaggatgaaa 23700

actgcccaaa acaacgagca gataactatc accaagatgc tggaaatagg gatcagaaca 23760

ccgactacct catagggctt gacggggaag acgcgctcct taaacatcta gcaagacagt 23820

cgctcatagt caaggatgca ttattggaca gaactgaagt gcccatcagt gtggaagagc 23880

tcagccgcgc ctacgagctt aacctctttt cacctcgtac tccccccaaa cgtcagccaa 23940

acggcacctg cgagccaaat cctcgcttaa acttttatcc agcttttgct gtgccagaag 24000

tactggctac ctatcacatc ttttttaaaa atcaaaaaat tccagtctcc tgccgcgcta 24060

atcgcacccg cgccgatgcc ctactcaatc tgggacctgg ttcacgctta cctgatatag 24120

cttccttgga agaggttcca aagatcttcg agggtctggg caataatgag actcgggccg 24180

caaatgctct gcaaaaggga gaaaatggca tggatgagca tcacagcgtt ctggtggaat 24240

tggaaggcga taatgccaga ctcgcagtac tcaagcgaag catcgaggtc acacacttcg 24300

catatcccgc tgtcaacctg ccccctaaag tcatgacggc ggtcatggac cagttactca 24360

ttaagcgcgc aagtcccctt tcagaagaca tgcatgaccc agatgcctgt gatgagggta 24420

aaccagtggt cagtgatgag cagctaaccc gatggctggg caccgactct cccagggatt 24480

tggaagagcg tcgcaagctt atgatggccg tggtgctggt taccgtagaa ctagagtgtc 24540

tccgacgttt ctttaccgat tcagaaacct tgcgcaaact cgaagagaat ctgcactaca 24600

cttttagaca cggctttgtg cggcaggcat gcaagatatc taacgtggaa ctcaccaacc 24660

tggtttccta catgggtatt ctgcatgaga atcgcctagg acaaagcgtg ctgcacagca 24720

ccctgaaggg ggaagcccgc cgtgattaca tccgcgattg tgtctatctg tacctgtgcc 24780

acacgtggca aaccggcatg ggtgtatggc agcaatgttt agaagaacag aacttgaaag 24840

agcttgacaa gctcttacag aaatctctta aggttctgtg gacagggttc gacgagcgca 24900

ccgtcgcttc cgacctggca gacctcatct tcccagagcg tctcagggtt actttgcgaa 24960

acggattgcc tgactttatg agccagagca tgcttaacaa ttttcgctct ttcatcctgg 25020

aacgctccgg tatcctgccc gccacctgct gcgcactgcc ctccgacttt gtgcctctca 25080

cctaccgcga gtgcccccg ccgctatgga gtcactgcta cctgttccgt ctggccaact 25140

atctctccta ccactcggat gtgatcgagg atgtgagcgg agacggcttg ctggagtgtc 25200

actgccgctg caatctgtgc acgccccacc ggtccctagc ttgcaacccc cagttgatga 25260

gcgaaaccca gataataggc acctttgaat tgcaaggccc cagcagccaa ggcgatgggt 25320

cttctcctgg gcaaagttta aaactgaccc cgggactgtg gacctccgcc tacttgcgca 25380

agtttgctcc ggaagattac cacccctatg aaatcaagtt ctatgaggac caatcacagc 25440

ctccaaaggc cgaactttcg gcctgcgtca tcacccaggg ggcaattctg gcccaattgc 25500

aagccatcca aaaatcccgc caagaatttc tactgaaaaa gggtaagggg gtctaccttg 25560

acccccagac cggcgaggaa ctcaacacaa ggttccctca ggatgtccca acgacgagaa 25620

aacaagaagt tgaaggtgca gccgccgccc ccagaagata tggaggaaga ttgggacagt 25680

caggcagagg aggcggagga ggacagtctg gaggacagtc tggaggaaga cagtttggag 25740

gaggaaaacg aggaggcaga ggaggtggaa gaagtaaccg ccgacaaaca gttatcctcg 25800

gctgcggaga caagcaacag cgctaccatc tccgctccga gtcgaggaac ccggcggcgt 25860

cccagcagta gatgggacga gaccggacgc ttcccgaacc caaccagcgc ttccaagacc 25920

ggtaagaagg atcggcaggg atacaagtcc tggcgggggc ataagaatgc catcatctcc 25980

tgcttgcatg agtgcggggg caacatatcc ttcacgcggc gctacttgct attccaccat 26040

ggggtgaact ttccgcgcaa tgttttgcat tactaccgtc acctccacag cccctactat 26100

agccagcaaa tcccggcagt ctcgacagat aaagacagcg gcggcgacct ccaacagaaa 26160

accagcagcg gcagttagaa aatacacaac aagtgcagca acaggaggat taaagattac 26220

agccaacgag ccagcgcaaa cccgagagtt aagaaatcgg atctttccaa ccctgtatgc 26280

catcttccag cagagtcggg gtcaagagca ggaactgaaa ataaaaaacc gatctctgcg 26340

ttcgctcacc agaagttgtt tgtatcacaa gagcgaagat caacttcagc gcactctcga 26400

ggacgccgag gctctcttca acaagtactg cgcgctgact cttaaagagt aggcagcgac 26460

cgcgcttatt caaaaaaggc gggaattaca tcatcctcga catgagtaaa gaaattccca 26520

cgccttacat gtggagttat caaccccaaa tgggattggc ggcaggcgcc tcccaggact 26580

actccacccg catgaattgg ctcagcgccg ggccttctat gatttctcga gttaatgata 26640

tacgcgccta ccgaaaccaa atacttttgg aacagtcagc tcttaccacc acgccccgcc 26700

aacaccttaa tcccagaaat tggcccgccg ccctagtgta ccaggaaagt cccgctccca 26760

ccactgtatt acttcctcga gacgcccagg ccgaagtcca aatgactaat gcaggtgcgc 26820

agttagctgg cggctccacc ctatgtcgtc acaggcctcg gcataatata aaacgcctga 26880

tgatcagagg ccgaggtatc cagctcaacg acgagtcggt gagctctccg cttggtctac 26940

gaccagacgg aatctttcag attgccggct gcgggagatc ttccttcacc cctcgtcagg 27000

ctgttctgac tttggaaagt tcgtcttcgc aaccccgctc gggcggaatc gggaccgttc 27060

aatttgtgga ggagtttact ccctctgtct acttcaaccc cttctccgga tctcctgggc 27120

attacccgga cgagttcata ccgaacttcg acgcgattag cgagtcagtg gacggctacg 27180

attgatgtct ggtgacgcgg ctgagctatc tcggctgcga catctagacc actgccgccg 27240

ctttcgctgc tttgcccggg aactcattga gttcatctac ttcgaactcc ccaaggatca 27300

ccctcaaggt ccggcccacg gagtgcggat ttctatcgaa ggcaaaatag actctcgcct 27360

gcaacgaatt ttctcccagc ggcccgtgct gatcgagcga gaccagggaa acaccacggt 27420

ttccatctac tgcatttgta atcaccccgg attgcatgaa agcctttgct gtcttatgtg 27480

tactgagttt aataaaaact gaattaagac tctcctacgg actgccgctt cttcaacccg 27540

gattttacaa ccagaagaac gaaacttttc ctgtcgtcca ggactctgtt aacttcacct 27600

ttcctactca caaactagaa gctcaacgac tacaccgctt ttccagaagc attttcccta 27660

ctaatactac tttcaaaacc ggaggtgagc tccaaggtct tcctacagaa aacccttggg 27720

tggaagcggg ccttgtagtg ctaggaattc ttgcgggtgg gcttgtgatt attctttgct 27780

acctatacac accttgcttc actttcttag tggtgttgtg gtattggttt aaaaaatggg 27840

gcccatacta gtcttgcttg ttttactttc gcttttggaa ccgggttctg ccaattacga 27900

tccatgtcta gacttcgacc cagaaaactg cacacttact tttgcacccg acacaagccg 27960

catctgtgga gttcatcgcc tctcttacga acttggcccc caacgacaaa aatttacctg 28020

catggtggga atcaacccca tagttatcac ccagcaaagt ggagatacta agggttgcat 28080

tcactgctcc tgcgattcca tcgagtgcac ctacaccctg ctgaagaccc tatgcggcct 28140

aagagacctg ctaccaatga attaaaaaat gattaataaa aaatcactta cttgaaatca 28200

gcaataaggt ctctgttgaa attttctccc agcagcacct cacttccctc ttcccaactc 28260

tggtattcta aaccccgttc agcggcatac tttctccata ctttaaaggg gatgtcaaat 28320

tttagctcct ctcctgtacc cacaatcttc atgtctttct tcccagatga ccaagagagt 28380

ccggctcagt gactccttca accctgtcta cccctatgaa gatgaaagca cctcccaaca 28440

ccccttttata aacccagggt ttatttcccc aaatggcttc acacaaagcc caaacggagt 28500

tcttacttta aaatgtttaa ccccactaac aaccacaggc ggatctctac agctaaaagt 28560

gggaggggga cttacagtgg atgacaccaa cggtttttg aaagaaaaca taagtgccac 28620

cacaccactc gttaagactg gtcactctat aggtttacca ctaggagccg gattgggaac 28680

gaatgaaaat aaactttgta tcaaattagg acaaggactt acattcaatt caaacaacat 28740

ttgcattgat gacaatatta acaccttatg gacaggagtc aaccccaccg aagccaactg 28800

tcaaatcatg aactccagtg aatctaatga ttgcaaatta attctaacac tagttaaaac 28860

tggagcacta gtcactgcat ttgtttatgt tataggagta tctaacaatt ttaatatgct 28920

aactacacac agaaatataa attttactgc agagctgttt ttcgattcta ctggtaattt 28980

actaactaga ctctcatccc tcaaaactcc acttaatcat aaatcaggac aaaacatggc 29040

tactggtgcc attactaatg ctaaaggttt catgcccagc acgactgcct atcctttcaa 29100

tgataattct agagaaaaag aaaactacat ttacggaact tgttactaca cagctagtga 29160

tcgcactgct tttcccattg acatatctgt catgcttaac cgaagagcaa taaatgacga 29220

gacatcatat tgtattcgta taacttggtc ctggaacaca ggagatgccc cagaggtgca 29280

aacctctgct acaaccctag tcacctcccc atttaccttt tactacatca gagaagacga 29340

ctgacaaata aagtttgcga tcgccaggcc caccatgggc tggagctgca tcatcttgtt 29400

cctggtcgca actgctaccg gagtccattc ggacatcgtc atgacccaaa gccctgactc 29460

gctcgctgtg tcactgggag agcgggcgac tatcaactgc aaatcatccc agagcctgct 29520

gtattcacgc aatcagaaaa actacctggc ctggtatcag cagaagccgg gccagcctcc 29580

caagctgctg atcttctggg cctccacccg cgaaagcggc gtgccggacc gcttcagcgg 29640

aagcggattc ggaactgact ttactctgac cattagctcc ttgcaggcgg aggacgtggc 29700

cgtctactac tgccagcagt atttctccta tccgctcacc tttgggcaag gcaccaaggt 29760

ggagattaag ggaggggcg gcagcggggg aggcggcagc ggcggcgggg gatcgcaggt 29820

ccagctcgtc caatccggag ccgaagtcaa gaagccggga gcgtcggtca aggtcagctg 29880

caaaacttcg cgctacacct tcactgagta cacgatccac tgggtccgcc aggcgcccgg 29940

ccagcggctg gagtggatcg gcgggatcaa cccaaacaac ggaatcccaa attacaatca 30000

gaaatttaaa gggcgggtga ctatcaccgt ggatacctcg gcctccacgg cgtacatgga 30060

gctctcatca ctcagatcgg aggacaccgc ggtctattac tgcgcccgcc gccggatcgc 30120

ttatggatac gatgaaggac atgcgatgga ttactggggc cagggcaccc tcgtcacggt 30180

gtcgtcagga ggcggcggtt cacaggtgca gctgcagcag tctggggctg aactggcaag 30240

acctggggcc tcagtgaaga tgtcctgcaa ggcttctggc tacaccttta ctaggtacac 30300

gatgcactgg gtaaaacaga ggcctggaca gggtctggaa tggattggat acattaatcc 30360

tagccgtggt tatactaatt acaatcagaa gttcaaggac aaggccacat tgactacaga 30420

caaatcctcc agcacagcct acatgcaact gagcagcctg acatctgagg actctgcagt 30480

ctattactgt gcaagatatt atgatgatca ttactgcctt gactactggg gccaaggcac 30540

cactctcaca gtctcctcag gtggcggtgg ctcgggcggt ggtggatctg gtggcggcgg 30600

atctgatatc gtgctcactc agtctccagc aatcatgtct gcatctccag gggagaaggt 30660

caccatgacc tgcagtgcca gctcaagtgt aagttacatg aactggtacc agcagaagtc 30720

aggcacctcc cccaaaagat ggatttatga cacatccaaa ctggcttctg gagtccctgc 30780

tcacttcagg ggcagtgggt ctgggacctc ttactctctc acaatcagcg gcatggaggc 30840

tgaagatgct gccacttatt actgccagca gtggagtagt aacccattca cgttcggctc 30900

ggggacaaag ttggaaataa accggggaag cggagctact aacttcagcc tgctgaagca 30960

ggctggagac gtggaggaga accctggacc taatcaaact gccattctga tttgctgcct 31020

tatctttctg actctaagtg gcattcaagg agtacctctc tctagaactg tacgctgtac 31080

ctgcatcagc attagtaatc aacctgttaa tccaaggtct ttagaaaaac ttgaaattat 31140

tcctgcaagc caattttgtc cacgtgttga gatcattgct acaatgaaaa agaagggtga 31200

gaagagatgt ctgaatccag aatcgaaggc catcaagaat ttactgaaag cagttagcaa 31260

ggaaaggtct aaaagatctc ctggaagcgg agagggcaga ggaagtctgc taacatgcgg 31320

tgacgtcgag gagaatcctg gacctaagaa aagtggtgtt cttttcctct tgggcatcat 31380

cttgctggtt ctgattggag tgcaaggaac cccagtagtg agaaagggtc gctgttcctg 31440

catcagcacc aaccaaggga ctatccacct acaatccttg aaagacctta aacaatttgc 31500

cccaagccct tcctgcgaga aaattgaaat cattgctaca ctgaagaatg gagttcaaac 31560

atgtctaaac ccagattcag cagatgtgaa ggaactgatt aaaaagtggg agaaacaggt 31620

cagccaaaag aaaaagcaaa agaatgggaa aaaacatcaa aaaaagaaag ttctgaaagt 31680

tcgaaaatct caacgttctc gtcaaaagaa gactacataa gctagcttga ctgactgaga 31740

tacagcgtac cttcagctca cagacatgat aagatacatt gatgagtttg gacaaaccac 31800

aactagaatg cagtgaaaaa aatgctttat ttgtgaaatt tgtgatgcta ttgctttatt 31860

tgtaaccatt ataagctgca ataaacaagt taacaacaac aattgcattc attttatgtt 31920

tcaggttcag ggggaggtgt gggaggtttt ttaaagcaag taaaacctct acaaatgtgg 31980

tagtcgtcag ctatcctgca ggaacttgtt tatttgaaaa tcaattcaca aaatccgagt 32040

agttattttg cctccccctt cccatttaac agaatacacc aatctctccc cacgcacagc 32100

tttaaacatt tggataccat tagatataga catggtttta gattccacat tccaaacagt 32160

ttcagagcga gccaatctgg ggtcagtgat agataaaaat ccatcgggat agtcttttaa 32220

agcgctttca cagtccaact gctgcggatg cgactccgga gtctggatca cggtcatctg 32280

gaagaagaac gatgggaatc ataatccgaa aacggtatcg gacgattgtg tctcatcaaa 32340

cccacaagca gccgctgtct gcgtcgctcc gtgcgactgc tgtttatggg atcagggtcc 32400

acagtgtcct gaagcatgat tttaatagcc cttaacatca actttctggt gcgatgcgcg 32460

cagcaacgca ttctgatttc actcaaatct ttgcagtagg tacaacacat tattacaata 32520

ttgtttaata aaccataatt aaaagcgctc cagccaaaac tcatatctga tataatcgcc 32580

cctgcatgac catcatacca aagtttaata taaattaaat gacgttccct caaaaacaca 32640

ctacccacat acatgatctc ttttggcatg tgcatattaa caatctgtct gtaccatgga 32700

caacgttggt taatcatgca acccaatata accttccgga accacactgc caacaccgct 32760

cccccagcca tgcattgaag tgaaccctgc tgattacaat gacaatgaag aacccaattc 32820

tctcgaccgt gaatcacttg agaatgaaaa atatctatag tggcacaaca tagacataaa 32880

tgcatgcatc ttctcataat ttttaactcc tcaggattta gaaacatatc ccagggaata 32940

ggaagctctt gcagaacagt aaagctggca gaacaaggaa gaccacgaac acaacttaca 33000

ctatgcatag tcatagtatc acaatctggc aacagcgggt ggtcttcagt catagaagct 33060

cgggtttcat tttcctcaca acgtggtaac tgggctctgg tgtaagggtg atgtctggcg 33120

catgatgtcg agcgtgcgcg caaccttgtc ataatggagt tgcttcctga cattctcgta 33180

ttttgtatag caaaacgcgg ccctggcaga acacactctt cttcgccttc tatcctgccg 33240

cttagcgtgt tccgtgtgat agttcaagta caaccacact cttaagttgg tcaaaagaat 33300

gctggcttca gttgtaatca aaactccatc gcatctaatc gttctgagga aatcatccaa 33360

gcaatgcaac tggattgtgt ttcaagcagg agaggagagg gaagagacgg aagaaccatg 33420

ttaattttta ttccaaacga tctcgcagta cttcaaattg tagatcgcgc agatggcatc 33480

tctcgccccc actgtgttgg tgaaaaagca cagctagatc aaaagaaatg cgattttcaa 33540

ggtgctcaac ggtggcttcc agcaaagcct ccacgcgcac atccaagaac aaaagaatac 33600

caaaagaagg agcattttct aactcctcaa tcatcatatt acattcctgc accattccca 33660

gataattttc agctttccag ccttgaatta ttcgtgtcag ttcttgtggt aaatccaatc 33720

cacacattac aaacaggtcc cggagggcgc cctccaccac cattcttaaa cacaccctca 33780

taatgacaaa atatcttgct cctgtgtcac ctgtagcgaa ttgagaatgg caacatcaat 33840

tgacatgccc ttggctctaa gttcttcttt aagttctagt tgtaaaaact ctctcatatt 33900

atcaccaaac tgcttagcca gaagcccccc gggaacaaga gcaggggacg ctacagtgca 33960

gtacaagcgc agacctcccc aattggctcc agcaaaaaca agattggaat aagcatattg 34020

ggaaccgcca gtaatatcat cgaagttgct ggaaatataa tcaggcagag tttcttgtaa 34080

aaattgaata aaagaaaaat ttgccaaaaa aacattcaaa acctctggga tgcaaatgca 34140

ataggttacc gcgctgcgct ccaacattgt tagttttgaa ttagtctgca aaaataaaaa 34200

aaaaaacaag cgtcatatca tagtagcctg acgaacagat ggataaatca gtctttccat 34260

cacaagacaa gccacagggt ctccagctcg accctcgtaa aacctgtcat catgattaaa 34320

caacagcacc gaaagttcct cgcggtgacc agcatgaata attcttgatg aagcatacaa 34380

tccagacatg ttagcatcag ttaacgagaa aaaacagcca acatagcctt tgggtataat 34440

tatgcttaat cgtaagtata gcaaagccac ccctcgcgga tacaaagtaa aaggcacagg 34500

agaataaaaa atataattat ttctctgctg ctgttcaggc aacgtcgccc ccggtccctc 34560

taaatacaca tacaaagcct catcagccat ggcttaccag acaaagtaca gcgggcacac 34620

aaagcacaag ctctaaagtg actctccaac ctctccacaa tatatatata cacaagccct 34680

aaactgacgt aatgggagta aagtgtaaaa aatcccgcca aacccaacac acaccccgaa 34740

actgcgtcac cagggaaaag tacagtttca cttccgcaat cccaacaggc gtaacttcct 34800

ctttctcacg gtacgtgata tcccactaac ttgcaacgtc attttcccac ggtcgcaccg 34860

ccccttttag ccgttaaccc cacagccaat caccacacga tccacacttt ttaaaatcac 34920

ctcatttaca tattggcacc attccatcta taaggtatat tatatagata ga 34972