

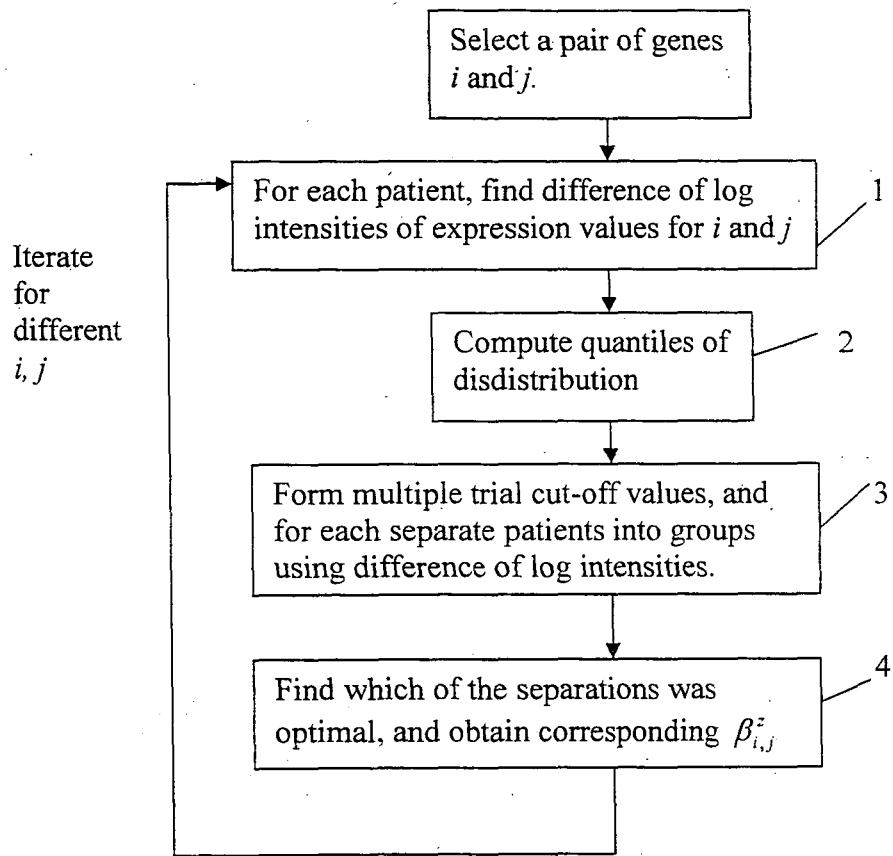


Fig. 1

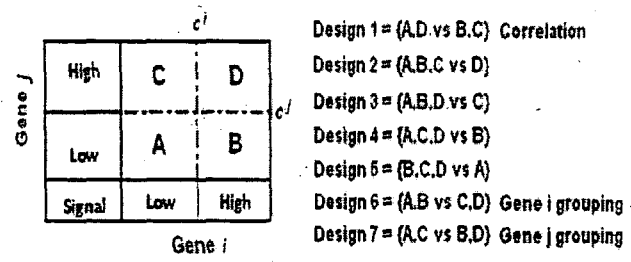


Fig. 2

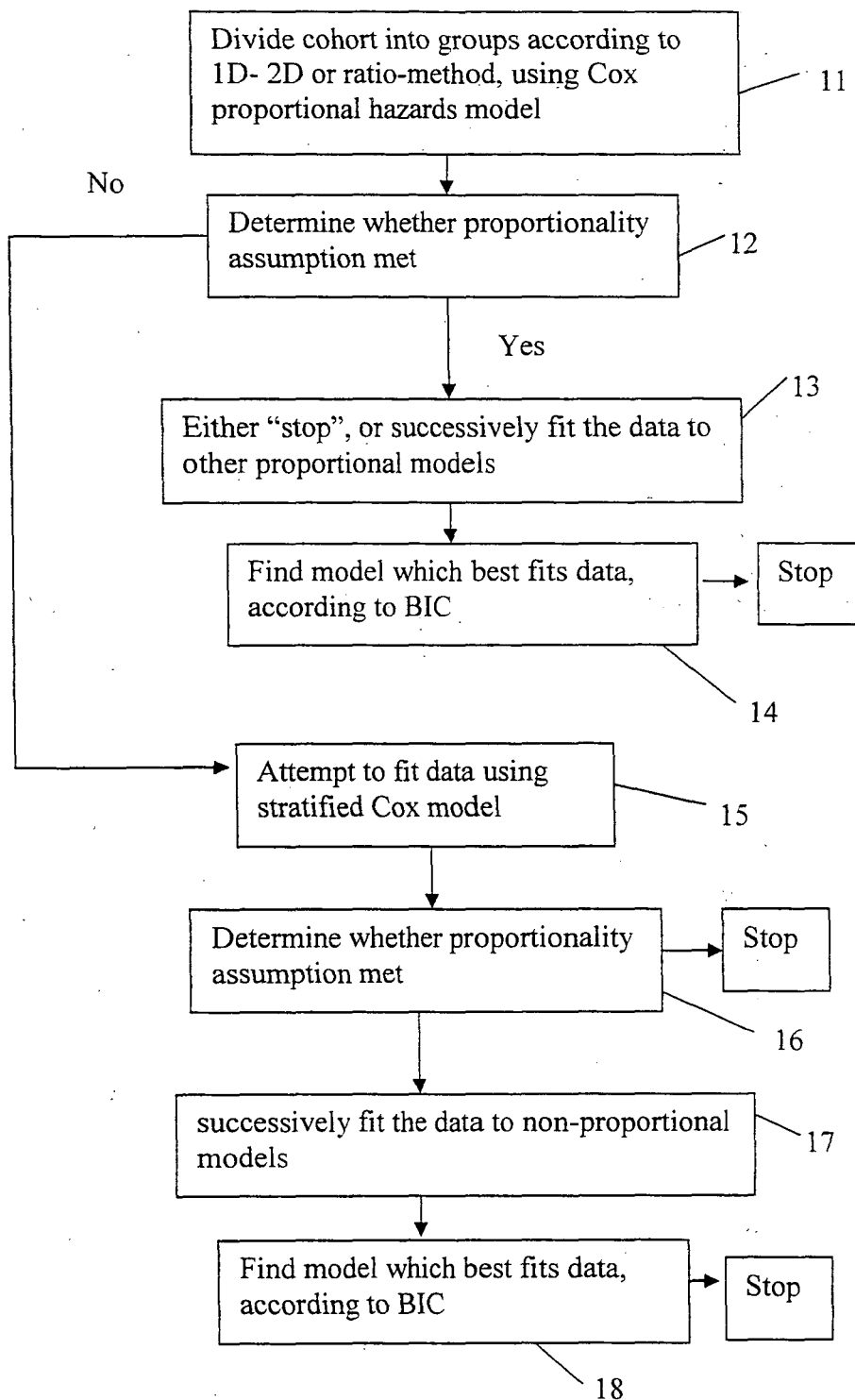


Fig. 3

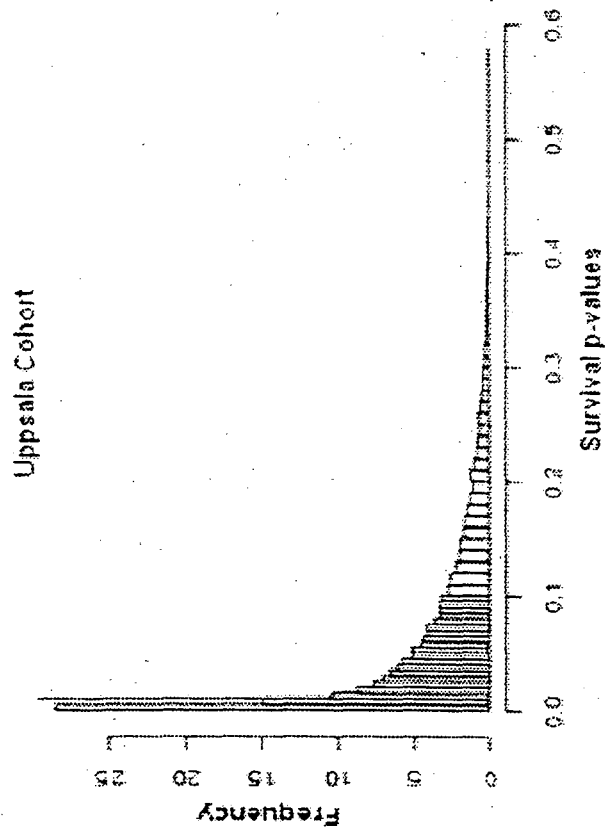
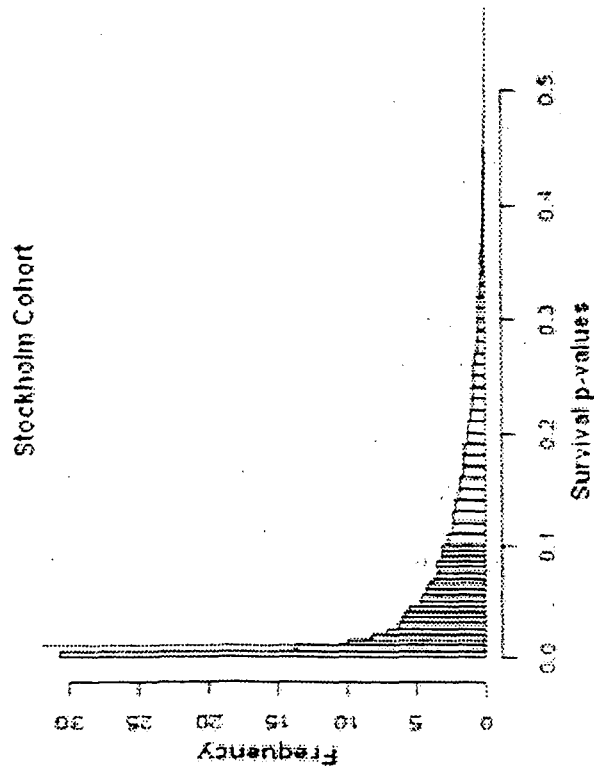


Fig. 4

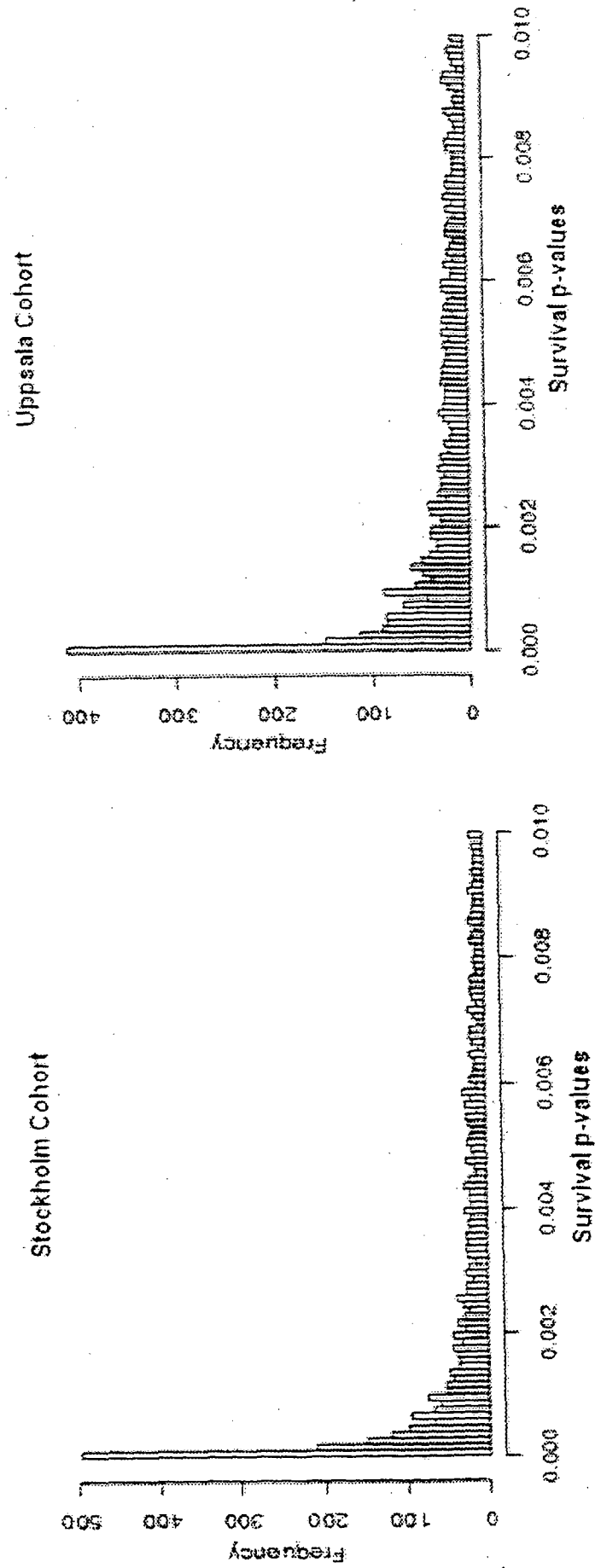


Fig. 5

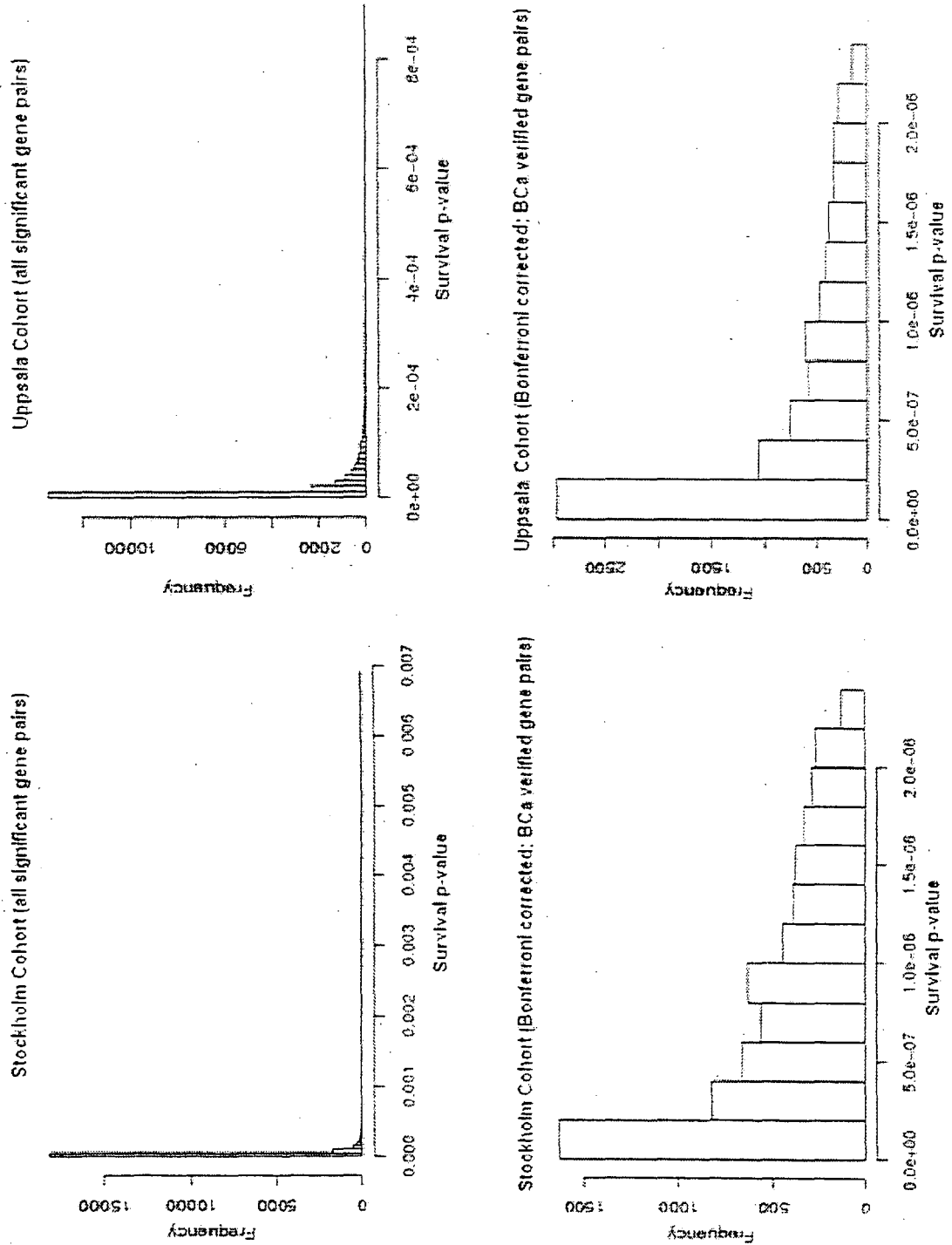
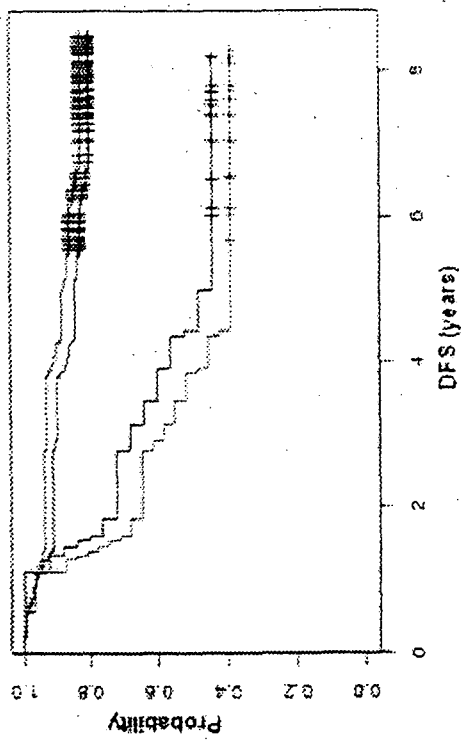


Fig. 6



Top-right panel
Black lines: Survival curves of A.212526_at (SPG20) grouping

Bottom-left panel
Black lines: Survival curves of 2D synergy grouping of A.200886_s_at (PGMA1)- A.212526_at (SPG20)

Red lines: Survival curves of ratio grouping of A.200886_s_at (PGMA1)- A.212526_at (SPG20)

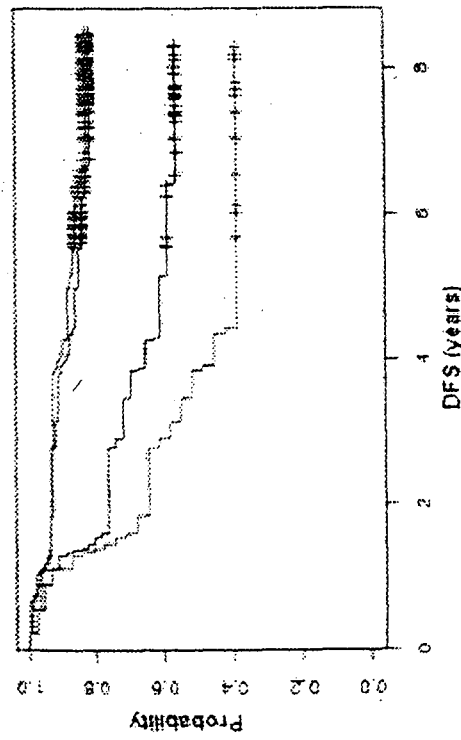
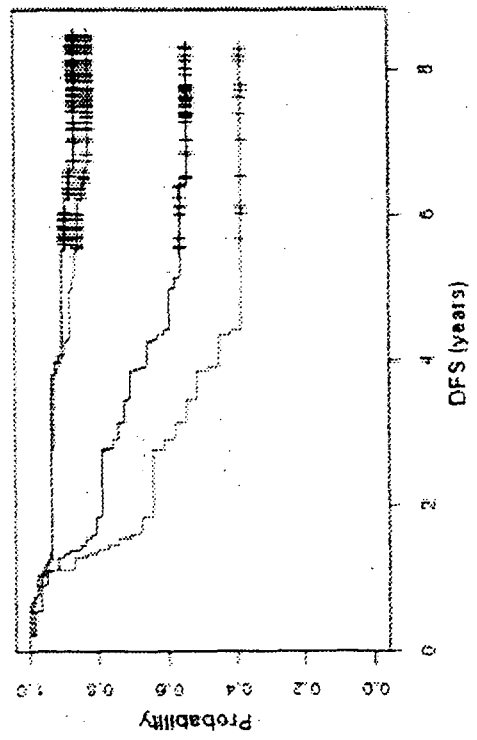
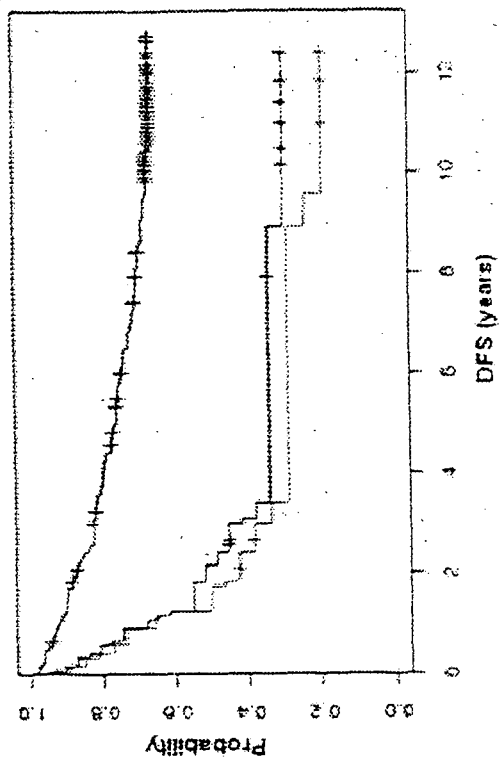


Fig. 7



Top-right panel
Black lines: Survival curves of A.212526_at (SPG20) grouping

Bottom-left panel
Black lines: Survival curves of 2D synergy grouping of A.200886_s_at (PGMA1)- A.212526_at (SPG20)
Red lines: Survival curves of ratio grouping of A.200886_s_at (PGMA1)- A.212526_at (SPG20)

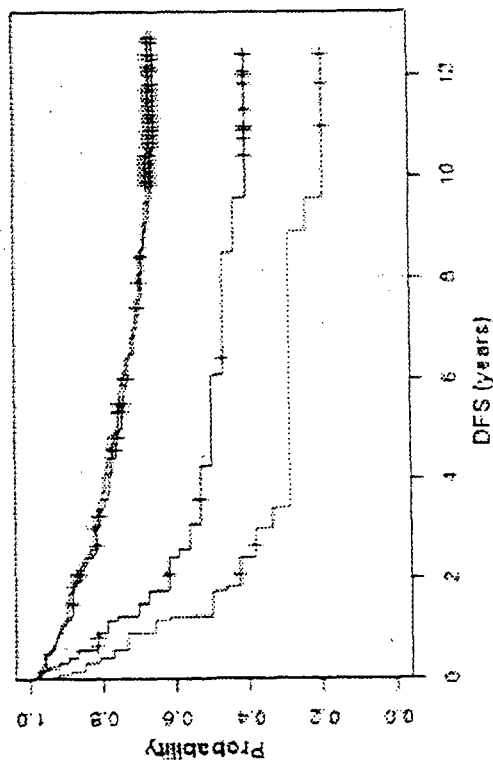
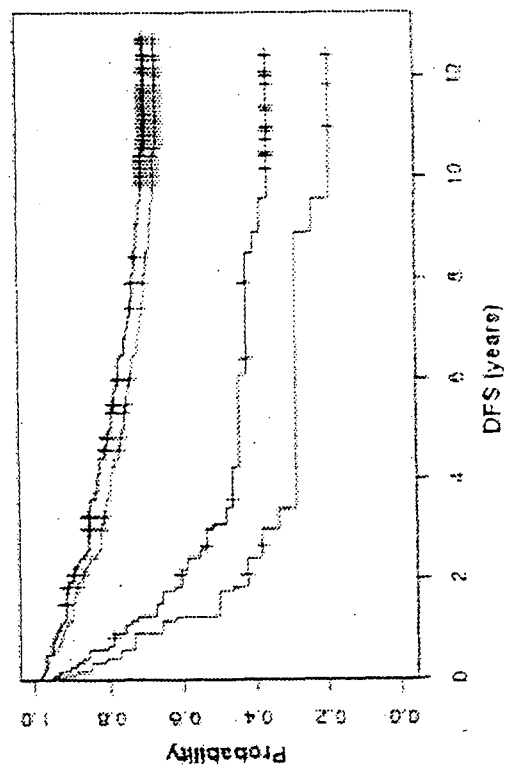


Fig. 8

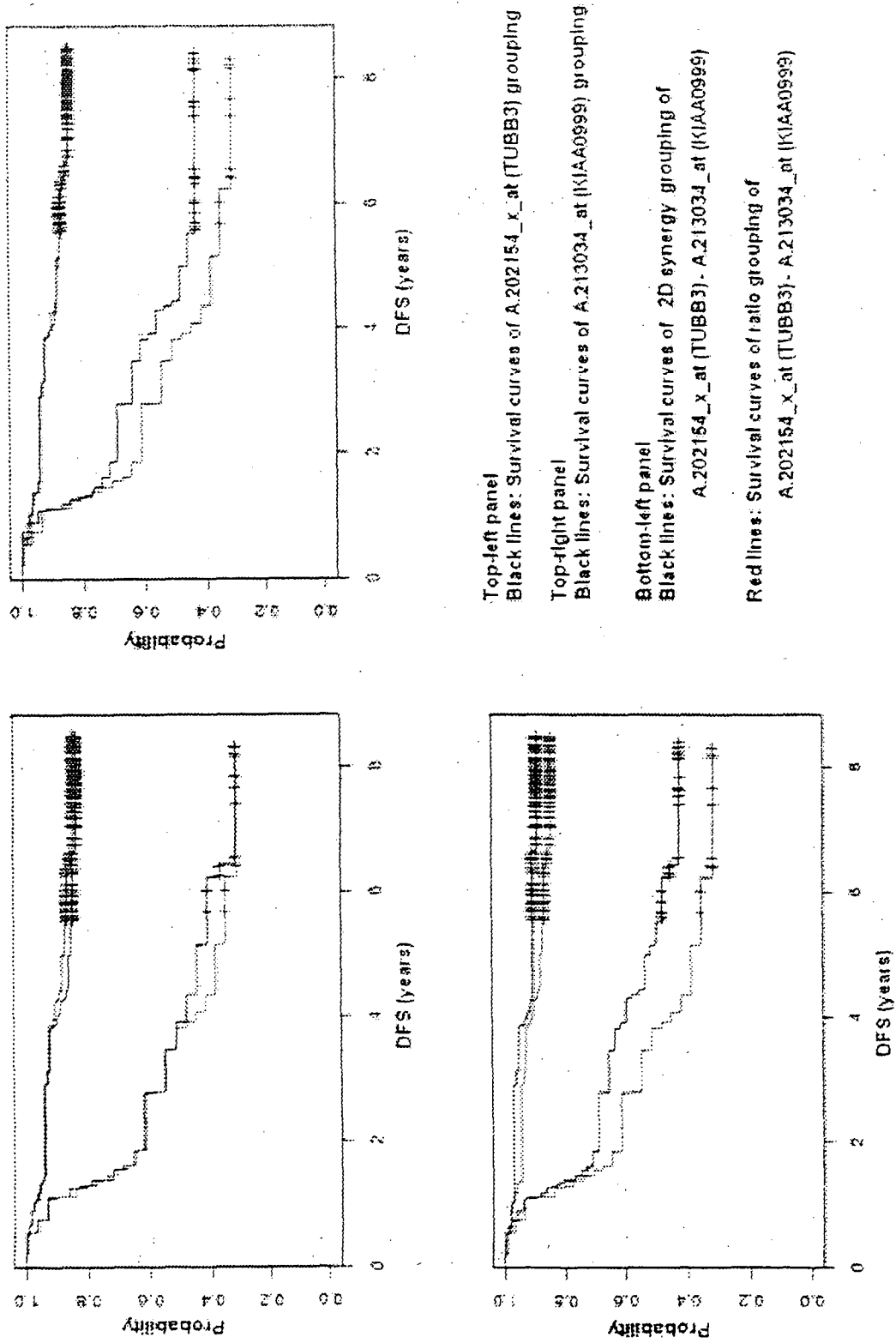
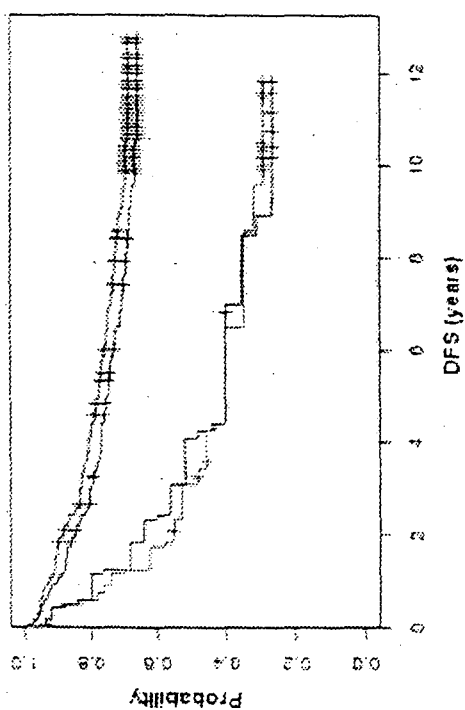


Fig. 9



Top-right panel
Black lines: Survival curves of A.213034_at (KIAA0999) grouping

Bottom-left panel
Black lines: Survival curves of 2D synergy grouping of
A.202154_x_at (TUBB3) - A.213034_at (KIAA0999)
Red lines: Survival curves of ratio grouping of
A.202154_x_at (TUBB3) - A.213034_at (KIAA0999)

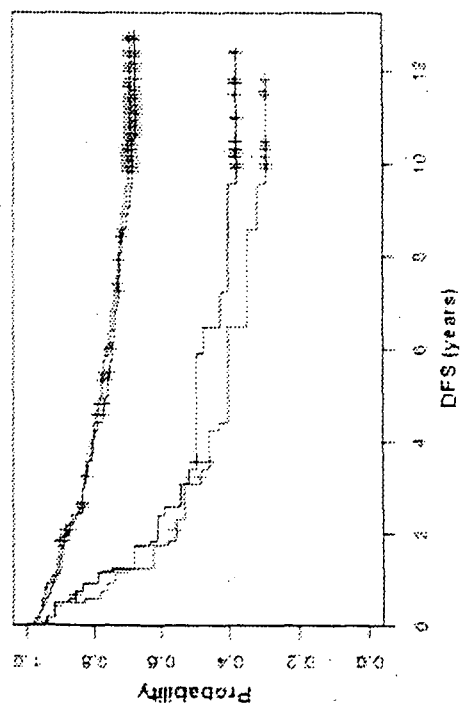
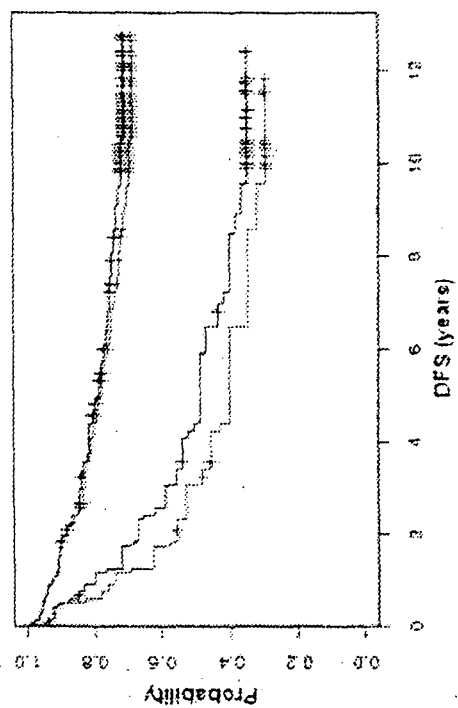
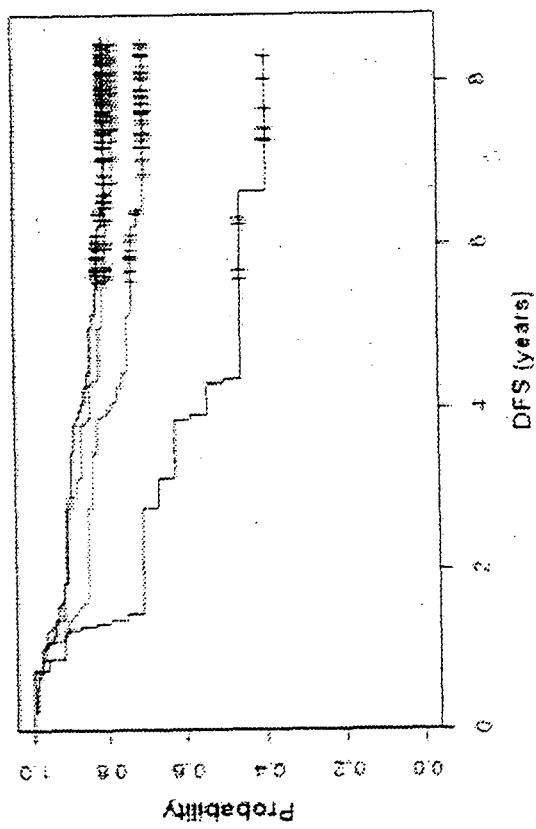


Fig. 10



Top-right panel
Black lines: Survival curves of A.219395_at (RBM35B) grouping

Bottom-left panel
Black lines: Survival curves of 2D synergy grouping of
A.200853_at (H2AFZ) - A.219395_at (RBM35B)
Red lines: Survival curves of ratio grouping of
A.200853_at (H2AFZ) - A.219395_at (RBM35B)

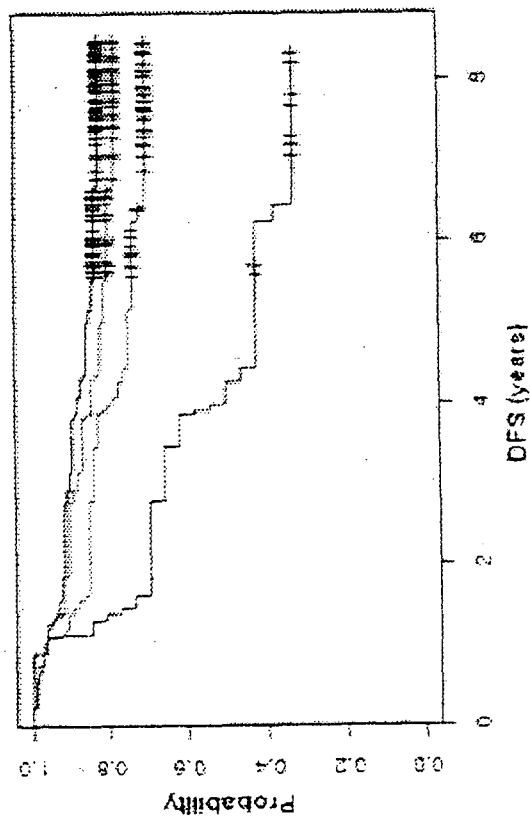
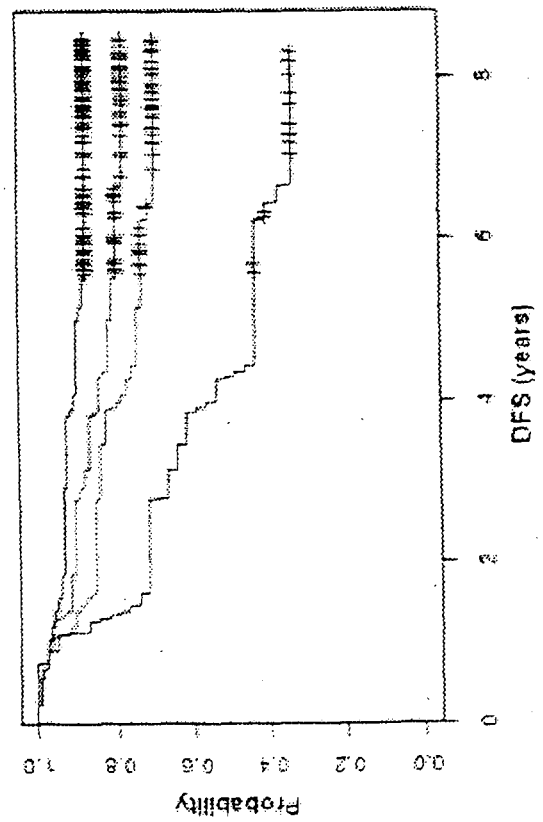
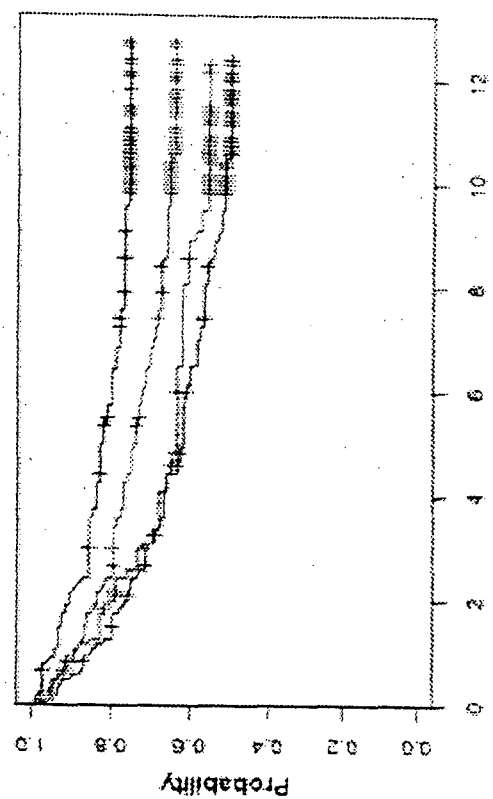


Fig. 11



Top-left panel
Black lines: Survival curves of A.200853_at (H2AFZ) grouping

Top-right panel
Black lines: Survival curves of A.219395_at (RBM35B) grouping

Bottom-left panel
Black lines: Survival curves of 2D synergy grouping of
A.200853_at (H2AFZ) - A.219395_at (RBM35B)

Red lines: Survival curves of ratio grouping of
A.200853_at (H2AFZ) - A.219395_at (RBM35B)

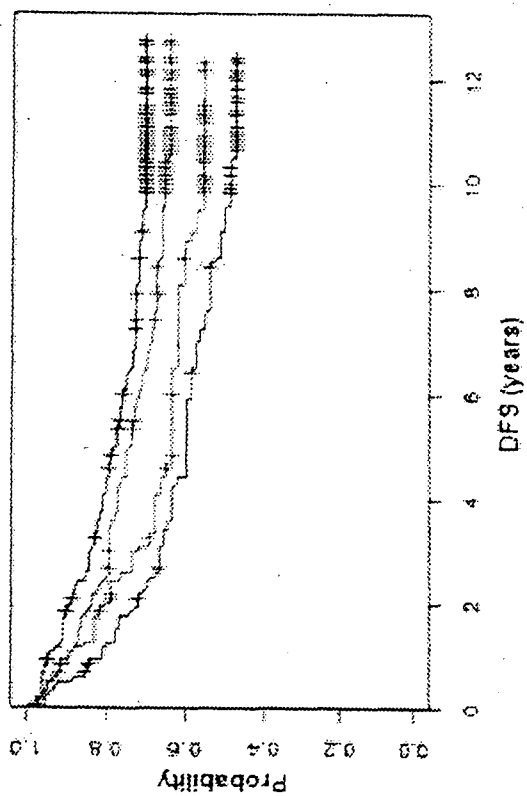
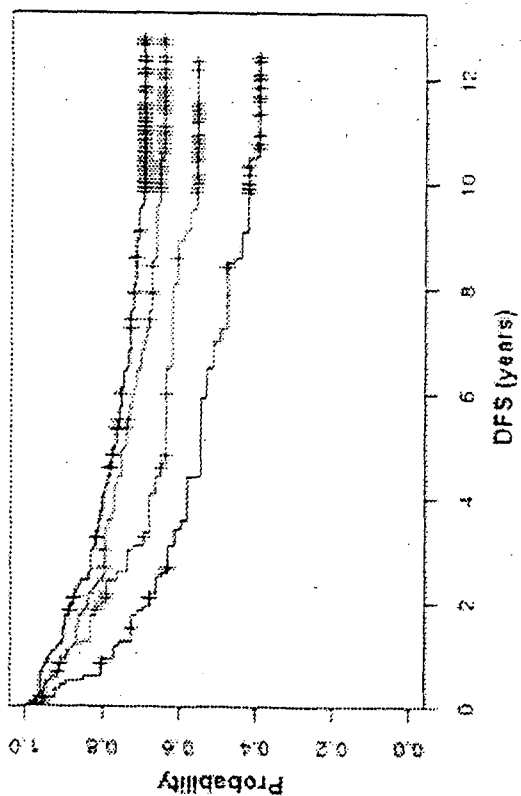


Fig. 12

SEQUENCE LISTING

<110> Agency for Science. Technology and Research

<120> A METHOD FOR IDENTIFICATION, PREDICTION AND PROGNOSIS OF CANCER AGGRESSIVENESS

<130> SG2618A

<150> SG 200901682-5

<151> 2009-03-10

<160> 61

<170> PatentIn version 3.4

<210> 1

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 1

cgaccctcag cagccagccc ggcccgcccg cgcctgtccg cagccgcccg ccagacgcgc	60
ccagtatgag ggagatcgtg cacatccagg ccggccagtg cggcaaccag atcggggcca	120
agttctggga agtcatcagt gatgagcatg gcatcgaccc cagcggcaac tacgtgggcg	180
actcggactt gcagctggag cggatcagcg tctactacaa cgaggcctct tctcacaagt	240
acgtgcctcg agccattctg gtggacctgg aacccggaac catggacagt gtccgctcag	300
gggccttttg acatctcttc aggcctgaca atttcatctt tggtcagagt ggggccggca	360
acaactgggc caagggtcac tacacggagg gggcggagct ggtggattcg gtccctggatg	420
tgggtgcggaa ggagtgtgaa aactgcgact gcctgcaggg cttccagctg acccactcgc	480
tggggggcgg cacgggctcc ggcattggga cgttgcctcat cagcaagggt cgtgaggagt	540
atcccgaccg catcatgaac accttcagcg tcgtgccctc acccaagggt tcagacacgg	600
tgggtggagcc ctacaacgcc acgctgtcca tccaccagct ggtggagaac acggatgaga	660
cctactgcat cgacaacgag gcgctctacg acatctgtct ccgcaccctc aagctggcca	720
cgcccaccta cggggacctc aaccacctgg tatcggccac catgagcgga gtcaccacct	780
ccttgcgctt cccgggccag ctcaacgctg acctgcgcaa gctggccgct aacatggtgc	840
ccttcccgcg cctgcacttc ttcattgccc gcttcgcccc cctcacagcc cggggcagcc	900
agcagtaccg ggccctgacc gtgcccagac taccacagca gatgttcgat gccagaaca	960
tgatggccgc ctgcgacctg cgccacggcc gctacctgac ggtggccacc gtgttcggg	1020
gccgcatgtc catgaaggag gtggacgagc agatgctggc catccagagc aagaacagca	1080
gctacttcgt ggagtggatc cccaacaacg tgaagggtgc cgtgtgtgac atcccgcccc	1140

gcggcctcaa gatgtcctcc accttcatcg ggaacagcac ggccatccag gagctgttca 1200
 agcgcatctc cgagcagttc acggccatgt tccggcgcaa ggccttctctg cactgggtaca 1260
 cgggcgaggg catggacgag atggagttca ccgaggccga gagcaacatg aacgacctgg 1320
 tgtccgagta ccagcagtac caggacgcca cggccgagga agagggcgag atgtacgaag 1380
 acgacgagga ggagtcggag gccacgggccc ccaagtgaag ctgctcgag ctggagtgaag 1440
 aggaggtgg cggccggggc cgaagccagc agtgtctaaa cccccggagc catcttgctg 1500
 ccgacacctt gctttccctt cgccctaggg ctcccttgcc gccctcctgc agtatattatg 1560
 gctcgtcctt cccacactag gccacgtgtg agctgtcctt gtctctgtct tattgcagct 1620
 ccaggcctga cgttttacgg ttttgTTTTT tactggtttg tgtttatatt ttcggggata 1680
 cttaataaat ctattgctgt cagataccct taaaaaaaaa aaaaaaaaaa aaaaaa 1736

<210> 2
 <211> 6072
 <212> DNA
 <213> Homo sapiens

<400> 2
 cagccgcgtc cccagcccc ggcctccgc ggacccatgc ccgcccgtat cggctactac 60
 gagatcgacc gcaccatcgg caagggaac ttcgcggtgg tcaagcggc cacgcacctc 120
 gtcaccaagg ccaaggttgc tatcaagatc atagataaga ccagctgga tgaagaaaac 180
 ttgaagaaga ttttccggga agttcaaatt atgaagatgc tttgccaccc ccatatcatc 240
 aggctctacc aggttatgga gacagaacgg atgatttacc tgggtgacaga atatgctagt 300
 ggaggggaaa tatttgacca cctggtggcc catggtagaa tggcagaaaa ggaggcacgt 360
 cggaagttca aacagatcgt cacagctgtc tatttttgtc actgtcggaa cattgttcat 420
 cgtgatttaa aagctgaaaa tttacttctg gatgccaatc tgaatatcaa aatagcagat 480
 tttggtttca gtaacctctt cactcctggg cagctgctga agacctggtg tggcagccct 540
 ccctatgctg cacctgaact ctttgaagga aaagaatatg atgggcccaa agtggacatc 600
 tggagccttg gagttgtcct ctacgtgctt gtgtgcggtg cctgccatt tgatggaagc 660
 aactgcaga atctgcgggc ccgctgctg agtggaaagt tccgcatccc attttttatg 720
 tccacagaat gtgagcattt gatccgcat atgttggtgt tagatcccaa taagcgctc 780
 tccatggagc agatctgcaa gcacaagtgg atgaagctag gggacgccga tcccaacttt 840
 gacagggttaa tagctgaatg ccaacaacta aaggaagaaa gacaggtgga cccctgaat 900
 gaggatgtcc tcttggccat ggaggacatg ggactggaca aagaacagac actgcagtca 960

ttaagatcag atgcctatga tcactatagt gcaatctaca gcctgctgtg tgatecgacat	1020
aagagacata aaacctgagc tctcggagca cttcctagca tgccccgagc cctggccttt	1080
caagcaccag tcaatatcca ggcgagcag gcaggtactg ctatgaacat cagcgttccc	1140
caggtgcagc tgatcaaccc agagaaccaa attgtggagc cggatgggac actgaatttg	1200
gacagtgatg agggatgaaga gccttccccct gaagcattgg tgcgctattt gtcaatgagg	1260
aggcacacag tgggtgtggc tgaccacgc acggaagtta tggaagatct gcagaagctc	1320
ctacctggct ttcctggagt caacccccag gctccattcc tgcaggtggc ccctaattgt	1380
aacttcatgc acaacctgtt gcctatgcaa aacttgcaac caaccgggca acttgagtac	1440
aaggagcagt ctctctaca gccgcccacg ctacagctgt tgaatggaat gggccccctt	1500
ggccggaggg catcagatgg aggagccaac atccaactgc atgccagca gctgctgaag	1560
cgcacacggg gacctctcc gcttgtcacc atgacaccag cagtgccagc agttaccct	1620
gtggacgagg agagctcaga cggggagcca gaccaggaag ctgtgcagag ctctacctac	1680
aaggactcca aactctgca cctccctacg gagcgtttct cccctgtgcg ccggttctca	1740
gatggggctg cgagcatcca ggccttcaaa gctcacctgg aaaaaatggg caacaacagc	1800
agcatcaaac agctgcagca ggagtgtgag cagctgcaga agatgtacgg ggggcagatt	1860
gatgaaagaa ccctggagaa gaccacgagc cagcatatgt tataccagca ggagcagcac	1920
catcaaattc tccagcaaca aattcaagac tctatctgtc ctctcagcc atctccacct	1980
cttcaggctg catgtgaaaa tcagccagcc ctcttacc atcagctcca gaggttaagg	2040
attcagcctt caagcccacc cccaaccac cccaacaacc atctcttcag gcagcccagt	2100
aatagtcttc ccccatgag cagtgccatg atccagcctc acggggctgc atcttcttcc	2160
cagtttcaag gcttaccttc ccgcagtgc atctttcagc agcaacctga gaactgttcc	2220
tctctccca acgtggcact aacctgcttg ggtatgcagc agcctgctca gtcacagcag	2280
gtcaccatcc aagtccaaga gcctgttgac atgctcagca acatgccagg cacagctgca	2340
ggctccagtg ggcgcgcat ctccatcagc ccagtgctg gtcagatgca gatgcagcac	2400
cgtaccaacc tgatggccac cctcagctat gggcacgctc ccttgtccaa gcagctgagt	2460
gctgacagtg cagaggctca cagcttgaac gtgaatcggg tctccccctgc taactacgac	2520
caggcgcatt tacaccccca tctgttttcg gaccagtccc ggggttcccc cagcagctac	2580
agcccttcaa caggagtggg gttctctcca acccaagccc tgaaagtccc tccacttgac	2640
caattcccca cttccctcc cagtgcacat cagcagccgc cacactatac cagctcggca	2700

ctacagcagg ccctgctgtc tcccacgccg ccagactata caagacacca gcaggtagcc	2760
cacatccttc aaggactgct ttctccccgg cattcgctca ccggccactc ggacatccgg	2820
ctgcccccaa cagagtttgc acagctcatt aaaaggcagc agcaacaacg gcagcagcag	2880
cagcaacagc agcaacagca agaataccag gaactgttca ggcacatgaa ccaaggggat	2940
gcggggagtc tggctcccag ccttggggga cagagcatga cagagcgcca ggctttatct	3000
tatcaaaatg ctgactctta tcaccatcac accagcccc agcatctgct acaaatcagg	3060
gcacaagaat gtgtctcaca ggcttctca cccacccgc cccacgggta tgctcaccag	3120
ccggcactga tgcattcaga gagcatggag gaggactgct cgtgtgaggg ggccaaggat	3180
ggcttccaag acagtaagag ttcaagtaca ttgaccaaag gttgccatga cagccctctg	3240
ctcttgagta ccggtggacc tggggaccct gaatctttgc taggaactgt gagtcatgcc	3300
caagaattgg ggatacatcc ctatggatcat cagccaactg ctgcattcag taaaaataag	3360
gtgcccagca gagagcctgt catagggaaac tgcattggata gaagttctcc aggacaagca	3420
gtggagctgc cggatcaciaa tgggctcggg taccagcac gccctccgt ccatgagcac	3480
cacaggcccc gggccctcca gagacaccac acgatccaga acagcgacga tgcttatgta	3540
cagctggata acttgccagg aatgagtctc gtggctggga aagcacttag ctctgcccgg	3600
atgtcggatg cagttctcag tcagtcttcg ctcatgggca gccagcagtt tcaggatggg	3660
gaaaatgagg aatgtggggc aagcctggga ggtcatgagc acccagacct gagtgatggc	3720
agccagcatt taaactctc ttgctatcca tctacgtgta ttacagacat tctgctcagc	3780
tacaagcacc ccgaagtctc cttcagcatg gagcaggcag gcgtgtaaca agaaacagag	3840
agttttgtgt acagcttggg aatgaaaagg ttgattgtaa acccacagta tctagcagcg	3900
ttgtgccaaa ttgcccttgt gtttctctcc acccaaaaata tcacagctgc tttctcaca	3960
tttggttcat ccgtgtgctg ttcttttggg ttctgagagg gttttgccat gtttgcttgt	4020
atgaccaagt caccaaggaa ataaacagga aggaaatcca tgttctccat cttttgtgaa	4080
agtatatattg agttggtggt tttttgtttt gtttgggggt ttgtgttttg ttttgttttt	4140
ggtatgtttt cttccagagg tgatatactt tctttttttt cttcctttct ttttttctt	4200
tcgttctttt ttgaaacag gagagcaaag cagttagagt tcagaggcca gcggcctcag	4260
ggccactccc tccctagcct tcacagcag agcacctcc atccccctgc attgctcttc	4320
tgtgaaagca aatactaaag gatgccatcc tctggaatcc taatggcagg caaagggaga	4380
gaggaagggg gacggcttct ggcacttaga aaacaaaaag aacaaaaaaa gagaaacccc	4440
caagcctgga acgcagagag gtctttactg ctgggatcca cggaaaacat gtctgtctta	4500

gccaaagatca tatgaagagt ttggcacgga ggctgagaat gacctggcat agatgggttg 4560
 ccagttagga tgtctcaatt tgagcctttg cttttgggtgg ataactcagc tccccctcttg 4620
 taacctggaa agttgggtgc ctttatcacc ctgctgggtt tatccatgga ctgaacaccc 4680
 aacagcagtg cactatgctt tctatggcat ctttcattct cattttatat tgtgctataa 4740
 aaaggattgt ttctccatat atatattata tatgtgtgta tatatataat ataatatatg 4800
 tgtatatata tattatatat ataatatata atataatata ttatatatat attatatata 4860
 taatatatat ataaaatata tatatatatg ctctcctctt tcagcctctt tgtcacaggg 4920
 aagaagtgta ggaggttgcc ttgggcccctg cctctctcct aacctcctct tccccactgg 4980
 gtaccctcag cccctatatt ttaattcttg atcatgtaga aattgttttt ggtaaagtgt 5040
 gatattattg ttattatcat tattaataaa taaagagaaa aggaattttt gtttaaagtga 5100
 gaaatgttta accagattct gttctatttg aattgtgact tgcacctttt gttcaaagta 5160
 tttccttttag gcattgtaat tgtgaacagc tcttacttgt gccagtgaca gatgcagtgg 5220
 tctcctttcc ccagttgaag cagtgcatac gcagtagcta ttatttgtgt tatctttatt 5280
 tctcttcatt gttagaaacc aaagtcttct ctgctggctg gggctgagag agggctctggg 5340
 ttatctcctt ctgatcttca aaacaagaga gagacctga atacactgac tcttcacccc 5400
 tttttttttc tgggaaagga gagcaagagg tcccgagtc cctcctagtc tttcatcctg 5460
 aatttgcaca gaggaaagcg ggtgcccggc atggccatcc tgatgttgct ggcgggatcc 5520
 ccatgcacct tgtccttctc cactgatact ggcagctcgg ctcttgacc caagatccct 5580
 tgagtggaaat tctgcagtgc aagagccctt cgtgggagct gtcccatgtt tccatggctc 5640
 ccagtctccc ctccacttg tggggtcacc aactactcac cagaaggggg cttaccaaga 5700
 aagccctaaa aagctgttga cttatctgcg cttgttccaa ctcttatgcc cccaacctgc 5760
 cctaccacca ccacgcgctc agcctgatgt gtttacatgg tactgtatgt atgggagagc 5820
 agactgcacc ctccagcaac aacagatgaa agccagtga cctactaacc gtgccatctt 5880
 gcaaaactaca ctttaaaaaa aactcattgc tttgtattgt agtaaccaat atgtgcagta 5940
 tacgttgaat gtatatgaac atactttcct atttctgttc tttgaaaatg tcagaaatat 6000
 ttttttcttt ctcatcttat gttgaactaa aaaggattaa aaaaaaaatc tccagactca 6060
 agttgctaaa aa 6072

<210> 3
 <211> 5031
 <212> DNA

<213> Homo sapiens

<400> 3

```

acgtgacctt ggctgcggcg gcggcggtgct gcgggctctg tggcgggagc gaggccgacg      60
ggcggggccg cgcggcccg tgacgcgaag cgttcgagag cgcgcgtcgt ggaacgtctt      120
ggttgccacg gcaagcgcgc gcgcgaggcc ttgggaacct cgggaccggc ccccggcgag      180
cgcagcggcg ccagtgtaa gggagtggga gctgggtcgt gccgcggcgg ccgcgcaggg      240
agctctcgag gcaacgccgg ggcgcccagag gtctggaagg cgcagaaatg gagcaagagc      300
cacaaaatgg agaacctgct gaaattaaga tcatcagaga agcatataag aaggcctttt      360
tatttggtta caaaggctct aatacagatg aattaggtca gaaggaagaa gcaaagaact      420
actataagca aggaatagga cacctgctca gagggatcag catttcatca aaagagtctg      480
aacacacagg tcttgggtgg gaatctgcta gacagatgca acagaaaatg aaagaaactc      540
tacagaatgt acgcaccagg ctggaaattc tagagaaggg tcttgccact tctctgcaga      600
atgatcttca ggaggtgccc aagttatata cagaatttcc acctaaagac atgtgtgaaa      660
aattaccaga gcctcagtct tttagttcag ctctcagca tgctgaagta aatggaaaca      720
cctcaactcc aagtgcaggg gcagttgctg cacctgcttc tctgtcttta ccatcacaaa      780
gttgtccagc agaagctcct cctgcttata ctctcaagc tgctgaaggc cactacactg      840
tacctatgg aacagattct ggggagtttt catcagttgg agaggagttt tataggaatc      900
attctcagcc accgcctctt gagaccttag ggctggatgc agatgaattg attttgatac      960
caaatggagt acagattttt tttgtaaata ctgcagggga ggttagtgca ctttcgtatc     1020
ctgggtacct tgaattgtg aggttttttg ataattctct cgatacggtt ctaaaccgtc     1080
ctccccgggt tcttcagggt tgtgactggt tatatcctct agttcctgat agatctccgg     1140
ttctgaaatg tactgcggga gcctacatgt ttctgatac aatgctacaa gcagcaggat     1200
gctttgtggg ggtcgtcctg tcctctgagt taccagagga tgatagagag ctctttgagg     1260
atctgttaag gcaaatgtct gaccttcggc tccaggccaa ctggaacaga gcagaagaag     1320
aaaatgaatt ccaaaccct ggaagaacta gaccctctc tgaccaacta aaagaagcct     1380
ctggcactga tgtgaaacag ttggaccaag gcaataagga tgtacgtcat aaaggaaaac     1440
gtggaaaaaag ggctaaagat acttcaagtg aagaagttaa cctgagtcac attgtaccat     1500
gtgagccagt tccagaagaa aagccaaaag aattacctga atggagtga aaagtggctc     1560
acaacatttt gtcagggtgt tcctgggtga gttggggttt agtcaaagggt gctgagatta     1620
ctggtaaggc aatccagaaa ggtgcttcta aactccgaga gcggattcaa ccagaagaaa     1680

```

aacccgtgga agttagtcca gctgtcacca agggacttta tatagcgaag caagctacag	1740
gaggagcagc aaaagtcagt cagttcctgg ttgatggagt ttgcactgta gcaaattgcy	1800
ttggaaaaga actagctcca catgtcaaga agcatggaag caaacttggt ccagaatctc	1860
ttaaaaaaga caaagatggg aaatctctc ttgatgggtgc tatggttgta gcagcaagta	1920
gtgttcaagg attttcaact gtctggcaag gattggaatg tgcagctaaa tgcatcgta	1980
acaatgtttc agcagaaact gtacaaactg tcagatacaa atacggatat aatgcaggag	2040
aagctaccca ccatgcggtg gattctgcgg tcaatgttgg cgtaactgcc tacaatatta	2100
acaacattgg tatcaaagca atgggtgaaga aaactgcaac acaaacagga cacactctcc	2160
ttgaggacta tcagatagtt gataattctc agagggaaaa tcaagaagga gcagcaaatg	2220
tcaacgtgag aggggagaag gatgagcaga cgaaggaagt aaaggaggca aagaagaaag	2280
ataaatgatg aagtgctggg aatcacttat accaaagcct tatgaaatgg atgaaatttt	2340
gttaaataagg caaatgtgga attcctcaca gattaaccag tatttttttaa atgtattcat	2400
tctacaaat taactttcat aaattttatg gcatgtcttc tattttaaag gaaaagaata	2460
agtattcttg catctggcct tagaaatgtg aagttatatt ctcaagtta ttttttcca	2520
agtgtagcta aaatattttt gcaggtaaaa taaagctgat agtacatgtg ttgttcaaac	2580
cttggttaaac ctaatatga actattttta tatctgctgt ctttcagaag gcaaatagga	2640
aactatatat ttgcttaaaa attggcattt agtaacctta attcttttta tagaaggaat	2700
gacttaaagt attgtccct ctttttgac taattgtgga tttttttaga tgcttctcaa	2760
aattttcagt gtgtaagcta aacaaaaact aaaactaaga attctcaaaa aaacttggtc	2820
aaaacaggga aagactgatg aaaagtaaaa tggactactt ttgtaactta cctgtttggt	2880
aggaaatgga atgggtctctt tgatttaaaa taaataaaaa tagattatta cgtctttgt	2940
attgagactg tattgttatg agcctaggaa atttgggaac atgattgtat tgtattaaaa	3000
ttcgaagtga ttattatcag cttaattgga ttaaaaaagt acttcaagaa attattttat	3060
catatctgct tctgtttttc caaaagggtta aaacttgtaa aaaaaatata tataaacaat	3120
tgagtttact aatggtaaac atttttattc tgggattcgg tcattggaat ttatattaaa	3180
agacaagtta ttaaaaagga aagggtctat tcataatcag ggtaaagaat atgaaaacct	3240
tagacgtaat ccatggtgga taggcattat ggtttccact ttggcagaag gcagactatt	3300
cacagcccta ttacttaca taggctaaaa aactatgtaa ctaaatacct aatggtat	3360
aatttttggt tattgaattt aagagattgg tattagtttt catagctgta gtccattcta	3420
ataatttctg atcttctagt ggctacttaa ttagacatta tttgaagctg tctgaagaat	3480

```

gcactttatg aattaaaaaa ctgaattgcc tgacctcggt atcacatgag cttatatattt 3540
gggaacacat agaactgatg gaggcttttc ctaaggccaa ggataatgta ctagttgtta 3600
aaatggaaat aaaagtgaag tggtaaatag cttacagaca gtctatgctt tgtttaagaa 3660
atggaatggc acttcatata ttctcatttg tgggagctaa aaattacaat aatcaaaactt 3720
aaggagatag agagtagaat gatggttacc agaggctggg aggcattgaa gggatgggga 3780
gggaagtgag gttgattaat gggtagaaa ataatgtag aacgaatttg ttgtagtatt 3840
tgatagccca acagggtgac tacagtcaac aataacttta tacatttaaa aataaaagag 3900
tgtaattggg acgtttgtaa cacaaatgaa tgcttgaagc agtagatata ccctgatgta 3960
attattataa atcgcatacc tgtatcaaaa tatctcatgt atcccataaa tatatacacc 4020
taccatgtac ccataaaaaat ttaaaaagaa atggaatggc aaataatgga acataaaactt 4080
taaacagtta gctttgacca gaggtcagca aatatcctcc atgggctaaa tccagatgtc 4140
cacctgtttt cataaataac gttttatttg agcatagctg taccatttg tttacatatt 4200
ggctatggct gctgtctagt tcaacgtgag agttgaatag ttgcatcaga gagtatatgg 4260
tccacaagcc taacttattc actctctggc cctttgcaga aaaagtgtgc tgccttagtc 4320
tatagaaaat ggacttttcc caccattcac tgactcatta ggagataggc atcttctaaa 4380
gatttttttt atattgtgta atgattgata tatagataaa attatatatt acttgtaagg 4440
tatgatgaat aacaacactt aaaaactcat cacacctaaa gacatggaaa gctgccaatt 4500
acctatatgt atgttcttcc tattttctta cctctttccc catgtcattt tttattgttc 4560
cttgccattt tttaatcaca catgtatgtt ctccaaacat actgtttcat ttttgaagc 4620
tttctacata tagtgtctga atgtgaagtc ttactcaact tgcttttttg agtttatgtt 4680
taaaattcat tcttgcgctt atatgcatgg atggtttact tgctctatag tattctgtgt 4740
gagtatacca caatttaagt gttcattttc ctatcagttg acatttgttt ttagtttttg 4800
ttggtagaaa cagtacactc aaaacatcct tgactgtccc ctggtacaca tatgcaagag 4860
actttatgcg taagagtgga gttgttggct tgtcaagttt tgcaaaataa tgccaggtat 4920
tttccaaaat gatgatattc tcttgagtat tacttccctt tgcaatgttt ttattgttaa 4980
tgtagcatat ataaaaaagt atctcataat tttaaaaaaa aaaaaaaaaa a 5031

```

```

<210> 4
<211> 5014
<212> DNA
<213> Homo sapiens

```

<400> 4

acgtgaccta ggctgcggcg gcggcgtgct gcgggctctg tggcgggagc gaggccgacg 60
 ggcggggccg cgcgcccgcg tgacgcgaag cgttcgagag cgcgcgctgt ggaacgtctt 120
 ggttgccacg gcaagcgcgc gcgcgaggcc ttgggaacct cgggaccggc ccccggcgag 180
 cgcagcggcg ccagtagtc atcttagtgg gatattggga agcaacaggg ctgtgtgggg 240
 taacctgcca cctttaagt gaaatcagaa atggagcaag agccacaaaa tggagaacct 300
 gctgaaatta agatcatcag agaagcatat aagaaggcct tttattttgt taacaaaggt 360
 ctgaatacag atgaattagg tcagaaggaa gaagcaaaga actactataa gcaaggaata 420
 ggacacctgc tcagagggat cagcatttca tcaaaagagt ctgaacacac aggtcctggg 480
 tgggaatctg ctagacagat gcaacagaaa atgaaagaaa ctctacagaa tgtacgcacc 540
 aggctggaaa ttctagagaa gggctctgcc acttctctgc agaattgatct tcaggagggtg 600
 cccaagttat atccagaatt tccacctaaa gacatgtgtg aaaaattacc agagcctcag 660
 tcttttagtt cagctcctca gcatgctgaa gtaaatggaa acacctcaac tccaagtgca 720
 ggggcagttg ctgcacctgc ttctctgtct ttaccatcac aaagttgtcc agcagaagct 780
 cctcctgctt atactcctca agctgctgaa ggtcactaca ctgtatccta tggaacagat 840
 tctggggagt tttcatcagt tggagaggag ttttatagga atcattctca gccaccgcct 900
 cttgagacct tagggctgga tgcagatgaa ttgattttga taccaaattg agtacagatt 960
 tttttgttaa atcctgcagg ggaggttagt gcacctctgt atcctgggta ctttcgaatt 1020
 gtgaggtttt tggataattc tctcgatacg gttctaaacc gtctctccgg gtttcttcag 1080
 gtttgtagct ggttatatcc tctagttcct gatagatctc cggttctgaa atgtactgcg 1140
 ggagcctaca tgtttctga tacaatgcta caagcagcag gatgctttgt gggggctgctc 1200
 ctgtcctctg agttaccaga ggatgataga gagctctttg aggatctgtt aaggcaaattg 1260
 tctgaccttc ggctccaggc caactggaac agagcagaag aagaaaatga attccaaatc 1320
 cctggaagaa ctagacctc ctctgaccaa ctaaaagaag cctctggcac tgatgtgaaa 1380
 cagttggacc aaggcaataa ggatgtacgt cataaaggaa aacgtggaaa aagggtctaaa 1440
 gatacttcaa gtgaagaagt taacctgagt cacattgtac catgtgagcc agttccagaa 1500
 gaaaagccaa aagaattacc tgaatggagt gaaaaagtgg ctcaacaacat tttgtcaggt 1560
 gcttctggg tgagttggg tttagtcaaa ggtgctgaga ttactggtaa ggcaatccag 1620
 aaaggtgctt ctaaaactcg agagcggatt caaccagaag aaaaaccgt ggaagttagt 1680
 ccagctgtca ccaagggact ttatatagcg aagcaagcta caggaggagc agcaaaagtc 1740

agtcagttcc	tggttgatgg	agtttgcact	gtagcaaatt	gcgttgga	agaactagct	1800
ccacatgtca	agaagcatgg	aagcaaactt	gttccagaat	ctcttaaaaa	agacaaagat	1860
gggaaatctc	ctctggatgg	tgctatggtt	gtagcagcaa	gtagtgttca	aggattttca	1920
actgtctggc	aaggattgga	atgtgcagct	aatgcatcg	ttaacaatgt	ttcagcagaa	1980
actgtacaaa	ctgtcagata	caaatacgga	tataatgcag	gagaagctac	ccaccatgcg	2040
gtggattctg	cggatcaatgt	tggtgtaact	gcctacaata	ttaacaacat	tggtatcaaa	2100
gcaatggtga	agaaaactgc	aacacaaaca	ggacacactc	tccttgagga	ctatcagata	2160
gttgataatt	ctcagagggg	aaatcaagaa	ggagcagcaa	atgtcaacgt	gagagggggg	2220
aaggatgagc	agacgaagga	agtaaaggag	gcaaagaaga	aagataaatg	atgaagtgtc	2280
gggaatcact	tataccaaag	ccttatgaaa	tggtatgaaat	tttggttaaat	aggcaaattgt	2340
ggaattcctc	acagattaac	cagtatTTTT	taaatgtatt	cattcctaca	aattaacttt	2400
cataaatttt	atggcatgtc	ttctatttaa	aaggaaaaga	ataagtattc	ttgcatctgg	2460
ccttagaaat	gtgaagttat	attctcaagt	ttattTTTTT	ccaagtgtag	ctaaaatatt	2520
tttgcaggta	aaataaagct	gatagtacat	gtgttgttca	aaccttggtta	aacctaatat	2580
tgaactatTT	ttatatctgc	tgtctttcag	aaggcaaata	ggaaactata	tatttgctta	2640
aaaattggca	tttagtaacc	ttaattcttt	ttatagaagg	aatgacttaa	agtattgtcc	2700
cctctTTTTg	cactaattgt	ggattTTTTT	agatgcttct	caaaattttc	agtgtgtaag	2760
ctaaacaaaa	actaaaacta	agaattctca	aaaaaacttg	ttcaaaacag	ggaaagactg	2820
atgaaaagta	aatgggacta	cttttgtaac	ttacctgttt	gttaggaaat	ggaatgggtc	2880
ctttgattta	aaataaataa	aatagatta	ttacgtcttt	tgtattgaga	ctgtattgtt	2940
atgagcctag	gaaatttggg	aacatgattg	tattgtatta	aaattcgaag	tgattattat	3000
cagcttaatt	ggattaaaaa	agtacttcaa	gaaattatTT	tatcatatct	gcttctgttt	3060
ttccaaaagg	ttaaaacttg	taaaaaaaat	atatataaac	aattgagttt	actaatggta	3120
aacattttta	ttctgggatt	cggtcattgg	aatttatatt	aaaagacaag	ttattaaaaa	3180
ggaaagggtc	tattcataat	cagggtaaag	aatatgaaaa	ccttagacgt	aatccatggt	3240
ggataggcat	tatggtttcc	actttggcag	aaggcagact	attcacagcc	ctatttactt	3300
acataggcta	aaaaactatg	taactaaata	cctaattggta	tttaattttt	gtttattgaa	3360
tttaagagat	tggtattagt	ttcatagct	gtagtccatt	ctaataattt	ctgatcttct	3420
agtggtact	taattagaca	ttatttgaag	ctgtctgaag	aatgcacttt	atgaattaaa	3480
aaactgaatt	gcctgacctc	gttatcacat	gagcttatat	tttggaaca	catagaactg	3540

```

atggaggctt ttcctaaggc caaggataat gtactagttg ttaaaatgga aataaaagtg 3600
aagtggtaaa tagcttacag acagtctatg ctttgtttta gaaatggaat ggcacttcat 3660
atattctcat ttgtgggagc taaaaattac aataatcaaa ctttaaggaga tagagagtag 3720
aatgatggtt accagaggct gggaggcatt gaagggatgg ggagggaagt gaggttgatt 3780
aatgggtacg aaaatatagt tagaacgaat ttgttgtagt atttgatagc ccaacagggt 3840
gactacagtc aacaataact ttatacattt aaaaataaaa gagtgttaatt gggacgtttg 3900
taacacaaat gaatgcttga agcagtagat acacctgat gtaattatta taaatcgcat 3960
acctgtatca aaatatctca tgtatcccat aaatatatac acctaccatg taccataaa 4020
aatttaaaaa gaaatggaat ggcaaataat ggaacataaa ctttaaacag ttagctttga 4080
ccagagggtca gcaaatatcc tccatgggct aaatccagat gtccacctgt ttcataaat 4140
aacgttttat tggagcatag ctgtacccat ttgtttacat attggctatg gctgctgtct 4200
agttcaacgt gagagttgaa tagttgcac agagagtata tgggccacaa gcctaactta 4260
ttcaactctc ggccctttgc agaaaaagtg tgctgcctta gtctatagaa aatggacttt 4320
tcccaccatt cactgactca ttaggagata ggcacttct aaagattttt tttatattgt 4380
gtaatgattg atatatagat aaaattatat attacttgta aggtatgatg aataacaaca 4440
cttaaaaact catcacacct aaagacatgg aaagctgcca attacctata tgtatgttct 4500
tctatatttc ttacctctt ccccatgtca tttttattg ttcttgcca ttttttaatc 4560
acacatgtat gttctccaaa catactgttt cattttttga agctttctac atatagtgtc 4620
tgaatgtgaa gtcttactca acttgctttt ttgagtttat gtttaaaatt cattcttgcg 4680
cttatatgca tggatggttt acttgctcta tagtattctg tgtgagtata ccacaattta 4740
agtgttcatt ttcctatcag ttgacatttg ttttagttt ttgttggtag aaacagtaca 4800
ctcaaaacat ccttgactgt ccctgggtac acatatgcaa gagactttat gcgtaagagt 4860
ggagttgttg gcttgtcaag ttttgcaaaa taatgccagg tattttccaa aatgatgata 4920
ttctcttgag tattacttcc ctttgcaatg tttttattgt taatgtagca tatataaaaa 4980
agtatctcat aattttaaaa aaaaaaaaaa aaaa 5014

```

```

<210> 5
<211> 4962
<212> DNA
<213> Homo sapiens

```

```

<400> 5
cggaggcctc ggtttcgctg gagagaaaga gattgcgcag gcgcggagca gccgacgtgg 60

```

ccgcagggga	ccgtgcctgg	gggggtctgc	gcggggccgc	tgactcgca	ggttctctgt	120
cgctgccgc	cctcgctcct	tttctccct	tctagagtgt	tacggtgact	cttgggtccg	180
aaggggacgg	acgtcctccc	acgtaccatt	tagaagaaat	ggagcaagag	ccacaaaatg	240
gagaacctgc	tgaaattaag	atcatcagag	aagcatataa	gaaggccttt	ttatttggtta	300
acaaaggtct	gaatacagat	gaattaggtc	agaaggaaga	agcaaagaac	tactataagc	360
aaggaatagg	acacctgctc	agagggatca	gcatttcctc	aaaagagtct	gaacacacag	420
gtcctgggtg	ggaatctgct	agacagatgc	aacagaaaat	gaaagaaact	ctacagaatg	480
tacgcaccag	gctggaaatt	ctagagaagg	gtcttgccac	ttctctgcag	aatgatcttc	540
aggaggtgcc	caagttatat	ccagaatttc	cacctaaaga	catgtgtgaa	aaattaccag	600
agcctcagtc	ttttagttca	gtcctcagc	atgctgaagt	aaatggaaac	acctcaactc	660
caagtgcagg	ggcagttgct	gcacctgctt	ctctgtcttt	accatcacia	agttgtccag	720
cagaagctcc	tcctgcttat	actcctcaag	ctgctgaagg	tcactacact	gtatcctatg	780
gaacagattc	tggggagttt	tcatcagttg	gagaggagtt	ttataggaat	cattctcagc	840
caccgcctct	tgagacctta	gggctggatg	cagatgaatt	gattttgata	ccaaatggag	900
tacagatttt	ttttgtaaat	cctgcagggg	aggttagtgc	accttcgtat	cctgggtacc	960
ttcgaattgt	gaggtttttg	gataattctc	tcgatacggg	tctaaaccgt	cctcccgggt	1020
ttcttcaggt	ttgtgactgg	ttatatcctc	tagttcctga	tagatctccg	gttctgaaat	1080
gtactgcggg	agcctacatg	tttctgata	caatgctaca	agcagcagga	tgctttgtgg	1140
gggtcgtcct	gtcctctgag	ttaccagagg	atgatagaga	gctctttgag	gatctgttaa	1200
ggcaaagtgc	tgaccttcgg	ctccaggcca	actggaacag	agcagaagaa	gaaaatgaat	1260
tccaaattccc	tggaagaact	agaccctcct	ctgaccaact	aaaagaagcc	tctggcactg	1320
atgtgaaaca	gttggaacca	ggcaataagg	atgtacgtca	taaaggaaaa	cgtggaaaaa	1380
gggctaaaga	tacttcaagt	gaagaagtta	acctgagtca	cattgtacca	tgtgagccag	1440
ttccagaaga	aaagccaaaa	gaattacctg	aatggagtga	aaaagtggct	cacaacattt	1500
tgtcaggtgc	ttcctgggtg	agttgggggt	tagtcaaagg	tgctgagatt	actggtaagg	1560
caatccagaa	aggtgcttct	aaactccgag	agcggattca	accagaagaa	aaacctgtgg	1620
aagttagtcc	agctgtcacc	aagggacttt	atatagcgaa	gcaagctaca	ggaggagcag	1680
caaaagtcag	tcagttcctg	gttgatggag	tttgactgtg	agcaaattgc	gttggaagaa	1740
aactagctcc	acatgtcaag	aagcatggaa	gcaaacttgt	tccagaatct	cttaaaaaag	1800

acaaagatgg gaaatctcct ctggatggtg ctatggttgt agcagcaagt agtgttcaag 1860
 gattttcaac tgtctggcaa ggattggaat gtgcagctaa atgcatcggt aacaatgttt 1920
 cagcagaaac tgtacaaact gtcagataca aatacggata taatgcagga gaagctaccc 1980
 accatgcggt ggattctgcg gtcaatgttg gcgtaactgc ctacaatatt aacaacattg 2040
 gtatcaaagc aatggtgaag aaaactgcaa cacaaacagg acacactctc cttgaggact 2100
 atcagatagt tgataattct cagagggaaa atcaagaagg agcagcaa atgtcaacgtga 2160
 gaggggagaa ggatgagcag acgaaggaag taaaggaggc aaagaagaaa gataaatgat 2220
 gaagtgcctg gaatcactta taccaaagcc ttatgaaatg gatgaaattt tgttaaatag 2280
 gcaaagtgtg aattcctcac agattaacca gtatTTTTTTT aatgtattca ttcctacaaa 2340
 ttaactttca taaatTTTTT ggcattgtct ctattttaaa ggaaaagaat aagtattctt 2400
 gcatctggcc ttagaaatgt gaagttatat tctcaagttt atttttttcc aagtgtagct 2460
 aaaatatttt tgcaggtaaa ataaagctga tagtacatgt gttgttcaaa cttgtttaa 2520
 cctaataattg aactattttt atatctgctg tctttcagaa ggcaaatagg aaactatata 2580
 tttgcttaaa aattggcatt tagtaacctt aattctTTTT atagaaggaa tgacttaaag 2640
 tattgtcccc tctttttgca ctaattgttg atttttttag atgcttctca aaattttcag 2700
 tgtgtaagct aaacaaaaac taaaactaag aattctcaaa aaaacttggt caaacaggg 2760
 aaagactgat gaaaagtaaa atggactact tttgtaactt acctgtttgt taggaaatgg 2820
 aatggtctct ttgatttaaa ataaataaaa atagattatt acgtcttttg tattgagact 2880
 gtattgttat gagcctagga aatttgggaa catgattgta ttgtattaaa attcgaagtg 2940
 attattatca gcttaattgg attaaaaaag tacttcaaga aattatttta tcatatctgc 3000
 ttctgtTTTT ccaaaagggt aaaacttgta aaaaaaatat atataaaca ttgagtttac 3060
 taatggtaaa catttttatt ctgggattcg gtcattggaa tttatattaa aagacaagtt 3120
 attaaaaagg aaaggttcta ttcataatca gggtaaagaa tatgaaaacc ttagacgtaa 3180
 tccatggtgg ataggcatta tggtttcac tttggcagaa ggcagactat tcacagccct 3240
 atttacttac ataggctaaa aaactatgta actaaatacc taatggtatt taatttttgt 3300
 ttattgaatt taagagattg gtattagttt tcatagctgt agtcattct aataatttct 3360
 gatcttctag tggctactta attagacatt atttgaagct gtctgaagaa tgcactttat 3420
 gaattaaaaa actgaattgc ctgacctcgt tatcacatga gcttatattt tgggaacaca 3480
 tagaactgat ggaggctttt cctaaggcca aggataatgt actagttggt aaaatggaaa 3540
 taaaagtga gtggtaaata gcttacagac agtctatgct ttgtttaaga aatggaatgg 3600

cacttcatat attctcattt gtgggagcta aaaattacaa taatcaaact taaggagata 3660
 gagagtagaa tgatggttac cagaggctgg gaggcattga agggatgggg aggggaagtga 3720
 ggttgattaa tgggtacgaa aatatagtta gaacgaattt gttgtagtat ttgatagccc 3780
 aacagggatga ctacagtcaa caataacttt atacatttaa aaataaaaga gtgtaattgg 3840
 gacgtttgta acacaaatga atgcttgaag cagtagatac accctgatgt aattattata 3900
 aatcgcatat ctgtatcaaa atatctcatg tatcccataa atatatacac ctaccatgta 3960
 cccataaaaa tttaaaaaga aatggaatgg caaataatgg aacataaact ttaaacagtt 4020
 agctttgacc agaggtcagc aaatatcctc catgggctaa atccagatgt ccacctgttt 4080
 tcataaataa cgtttttattg gagcatagct gtaccattt gtttacatat tggctatggc 4140
 tgctgtctag ttcaacgtga gagttgaata gttgcatcag agagtatatg gtccacaagc 4200
 ctaacttatt cactctctgg ccctttgcag aaaaagtgtg ctgccttagt ctatagaaaa 4260
 tggacttttc ccaccattca ctgactcatt aggagatagg catcttctaa agattttttt 4320
 tatattgtgt aatgattgat atatagataa aattatatat tacttgtaag gtatgatgaa 4380
 taacaacact taaaaactca tcacacctaa agacatggaa agctgccaat tacctatatg 4440
 tatgttcttc ctattttctt acctctttcc ccatgtcatt ttttattgtt ccttgccatt 4500
 ttttaatcac acatgtatgt tctccaaaca tactgtttca ttttttgaag ctttctacat 4560
 atagtgtctg aatgtgaagt cttactcaac ttgctttttt gagtttatgt ttaaaattca 4620
 ttcttgcgct tatatgcatg gatgggttac ttgctctata gtattctgtg tgagtatacc 4680
 acaatttaag tgttcatttt cctatcagtt gacatttgtt tttagttttt gttggtagaa 4740
 acagtacact caaaacatcc ttgactgtcc cctggtacac atatgcaaga gactttatgc 4800
 gtaagagtgg agttgttggc ttgtcaagtt ttgcaaaata atgccaggta ttttccaaaa 4860
 tgatgatatt ctcttgagta ttacttcctt ttgcaatgtt tttattgtta atgtagcata 4920
 tataaaaaag tatctcataa ttttaaaaaa aaaaaaaaaa aa 4962

<210> 6

<211> 4838

<212> DNA

<213> Homo sapiens

<400> 6

accagtacca gccccacct tccgtctgtg catgttttct tcagtcctgg aaggaaatca 60

taagtgattt gccccaaaag gattgctgtt gaaaatggag caagagccac aaaatggaga 120

acctgctgaa attaagatca tcagagaagc atataagaag gcctttttat ttgttaacaa 180

aggtctgaat acagatgaat taggtcagaa ggaagaagca aagaactact ataagcaagg	240
aataggacac ctgctcagag ggatcagcat ttcattcaaaa gagtctgaac acacagggtcc	300
tgggtgggaa tctgctagac agatgcaaca gaaaatgaaa gaaactctac agaattgtacg	360
caccaggctg gaaattctag agaaggggtct tgccacttct ctgcagaatg atcttcagga	420
ggtgcccag ttatatccag aatttccacc taaagacatg tgtgaaaaat taccagagcc	480
tcagtctttt agttcagctc ctcagcatgc tgaagtaa at ggaaacacct caactccaag	540
tgcaggggca gttgctgcac ctgcttctct gtctttacca tcacaaagt gtccagcaga	600
agctcctcct gcttatactc ctcaagctgc tgaagggtcac tacactgtat cctatggaac	660
agattctggg gagttttcat cagttggaga ggagttttat aggaatcatt ctcagccacc	720
gcctcttgag accttagggc tggatgcaga tgaattgatt ttgataccaa atggagtaca	780
gatttttttt gtaaactcctg caggggaggt tagtgcacct tcgtatcctg ggtaccttcg	840
aattgtgagg tttttggata attctctcga tacggttcta aaccgtcctc ccgggtttct	900
tcaggtttgt gactggttat atcctctagt tcctgataga tctccggttc tgaaatgtac	960
tgcgggagcc tacatgtttc ctgatacaat gctacaagca gcaggatgct ttgtgggggt	1020
cgctcctgtcc tctgagttac cagaggatga tagagagctc tttgaggatc tgtaaggca	1080
aatgtctgac cttcggctcc aggccaactg gaacagagca gaagaagaaa atgaattcca	1140
aatccctgga agaactagac cctcctctga ccaactaaaa gaagcctctg gactgatgt	1200
gaaacagttg gaccaaggca ataaggatgt acgtcataaa ggaaaacgtg gaaaaagggc	1260
taaagatact tcaagtgaag aagttaacct gagtacatt gtaccatgtg agccagttcc	1320
agaagaaaag ccaaaagaat tacctgaatg gagtgaaaaa gtgggtcaca acattttgtc	1380
aggtgcttcc tgggtgagtt ggggtttagt caaagggtgct gagattactg gtaaggcaat	1440
ccagaaagggt gcttctaaac tccgagagcg gattcaacca gaagaaaaac ccgtggaagt	1500
tagtccagct gtcaccaagg gactttatat agcgaagcaa gctacaggag gagcagcaaa	1560
agtcagtcag ttcttggttg atggagtttg cactgtagca aattgcgttg gaaaagaact	1620
agctccacat gtcaagaagc atggaagcaa acttggtcca gaatctctta aaaaagacaa	1680
agatgggaaa tctcctctgg atggtgctat gggtgtagca gcaagtagtg ttcaaggatt	1740
ttcaactgtc tggcaaggat tggaatgtgc agctaaatgc atcgtaaca atgtttcagc	1800
agaaactgta caaactgtca gatacaata cggatataat gcaggagaag ctaccacca	1860
tgcggtggat tctgcggtca atgttggcgt aactgcctac aatattaaca acattggtat	1920

caaagcaatg	gtgaagaaaa	ctgcaacaca	aacaggacac	actctccttg	aggactatca	1980
gatagttgat	aattctcaga	gggaaaatca	agaaggagca	gcaaatgtca	acgtgagagg	2040
ggagaaggat	gagcagacga	aggaagtaaa	ggaggcaaag	aagaaagata	aatgatgaag	2100
tgctgggaat	cacttatacc	aaagccttat	gaaatggatg	aaattttggt	aaataggcaa	2160
atgtggaatt	cctcacagat	taaccagtat	tttttaaagt	tattcattcc	tacaaattaa	2220
ctttcataaa	ttttatggca	tgtcttctat	ttaaaaggaa	aagaataagt	attcttgcac	2280
ctggccttag	aaatgtgaag	ttatattctc	aagtttattt	ttttccaagt	gtagctaaaa	2340
tatTTTTgca	ggtaaaataa	agctgatagt	acatgtgttg	ttcaaaccct	gttaaaccct	2400
atattgaact	atTTTTatat	ctgctgtctt	tcagaaggca	aataggaaac	tatatatttg	2460
cttaaaaatt	ggcatttagt	aaccttaatt	ctttttatag	aaggaatgac	ttaaagtatt	2520
gtccccctct	tttgactaa	ttgtggattt	tttttagatg	ttctcaaaat	tttcagtgtg	2580
taagctaaac	aaaaactaaa	actaagaatt	ctcaaaaaaa	cttggtcaaa	acagggaag	2640
actgatgaaa	agtaaaatgg	actacttttg	taacttacct	gtttgttagg	aatgggaatg	2700
gtctctttga	tttaaaataa	ataaaaatag	attattacgt	cttttgtatt	gagactgtat	2760
tgttatgagc	ctaggaaatt	tggaacatg	attgtattgt	attaaaattc	gaagtgatta	2820
ttatcagctt	aattggatta	aaaaagtact	tcaagaaatt	atTTtatcat	atctgcttct	2880
gtttttccaa	aagggttaaaa	cttgtaaaaa	aaatatatat	aaacaattga	gtttactaat	2940
ggtaaacatt	tttattctgg	gattcgggtc	ttggaattta	tattaaaaga	caagttatta	3000
aaaaggaaag	gttctattca	taatcaggg	aaagaatatg	aaaaccttag	acgtaatcca	3060
tggtggatag	gcattatgg	ttccactttg	gcagaaggca	gactattcac	agccctattt	3120
acttacatag	gctaaaaaac	tatgtaacta	aataccta	ggatTTaat	ttttgtttat	3180
tgaatttaag	agattgggat	tagttttcat	agctgtagtc	cattctaata	atttctgac	3240
ttctagtggc	tacttaatta	gacattattt	gaagctgtct	gaagaatgca	ctttatgaat	3300
taaaaaactg	aattgcctga	cctcggtatc	acatgagctt	atattttggg	aacacataga	3360
actgatggag	gcttttccta	aggccaagga	taatgtacta	gttgTTaaaa	tggaaataaa	3420
agtgaagtgg	taaatagctt	acagacagtc	tatgctttgt	ttaaagaaatg	gaatggcact	3480
tcatatattc	tcatttggg	gagctaaaaa	ttacaataat	caaacttaag	gagatagaga	3540
gtagaatgat	ggttaccaga	ggctgggagg	cattgaaggg	atggggaggg	aagtgaggtt	3600
gattaatggg	tacgaaaata	tagttagaac	gaatttgttg	tagtatttga	tagcccaaca	3660
gggtgactac	agtcaacaat	aactttatac	atttaaaaaat	aaaagagtgt	aattgggacg	3720

```

tttghtaacac aaatgaatgc ttgaagcagt agatacacccc tgatgtaatt attataaaatc 3780
gcatacctgt atcaaaatat ctcatgtatc ccataaatat atacacctac catgtaccca 3840
taaaaatttta aaaagaaatg gaatggcaaa taatggaaca taaactttta acagtttagct 3900
ttgaccagag gtcagcaaat atcctccatg ggctaaatcc agatgtccac ctgttttcat 3960
aaataacggt ttattggagc atagctgtac ccatttggtt acatattggc tatggctgct 4020
gtctagttca acgtgagagt tgaatagttg catcagagag tatatgggtcc acaagcctaa 4080
cttattcact ctctggccct ttgcagaaaa agtgtgctgc cttagtctat agaaaatgga 4140
cttttccac cattcactga ctcattagga gataggcatc ttctaaagat tttttttata 4200
ttgtgtaatg attgatatat agataaaatt atatatattact tgtaagggtat gatgaataac 4260
aacacttaaa aactcatcac acctaaagac atggaaagct gccaatattac tatatgtatg 4320
ttcttctat tttcttacct ctttcccat gtcatttttt attgttcctt gccatttttt 4380
aatcacacat gtatgttctc caaacatact gtttcatttt ttgaagcttt ctacatatag 4440
tgtctgaatg tgaagtctta ctcaacttgc ttttttgagt ttatgtttta aattcattct 4500
tgcgcttata tgcattggatg gtttacttgc tctatagtat tctgtgtgag tataaccacaa 4560
tttaagtgtt cattttccta tcagttgaca tttgttttta gtttttggtg gtagaaacag 4620
tacactcaaa acatccttga ctgtcccttg gtacacatat gcaagagact ttatgcgtaa 4680
gagtggaggt gttggcttgt caagttttgc aaaataatgc caggtatttt ccaaaatgat 4740
gatattctct tgagtattac ttccctttgc aatgttttta ttgttaatgt agcatatata 4800
aaaaagtatc tcataatttt aaaaaaaaaa aaaaaaaa 4838

```

```

<210> 7
<211> 1762
<212> DNA
<213> Homo sapiens

```

```

<400> 7
gctaatacca gtcggtgccg catccccagc ccgcccgcct ggccgcctac aaactggtgc 60
tgatccggca cggcgagagc gcatggaacc tggagaaccg cttcagcggc tggtagcagc 120
ccgacctgag cccggcgggc cacgaggagg cgaagcgcgg cgggcaggcg ctacgagatg 180
ctggctatga gtttgacatc tgcttcacct cagtgcagaa gagagcgatc cggaccctct 240
ggacagtgtc agatgccatt gatcagatgt ggctgccagt ggtgaggact tggcgctca 300
atgagcggca ctatgggggt ctaaccggtc tcaataaagc agaaactgct gcaaagcatg 360
gtgaggccca ggtgaagatc tggaggcgct cctatgatgt cccaccacct ccgatggagc 420

```

```

ccgaccatcc tttctacagc aacatcagta aggatcgcag gtatgcagac ctcacagaag 480
atcagctacc ctctgtgag agtctgaagg atactattgc cagagctctg cccttctgga 540
atgaagaaat agttccccag atcaaggagg ggaaacgtgt actgattgca gcccatggca 600
acagcctccg gggcattgtc aagcatctgg agggctctctc tgaagaggct atcatggagc 660
tgaacctgcc gactggtatt cccattgtct atgaattgga caagaacttg aagcctatca 720
agcccatgca gtttctgggg gatgaagaga cgggtgcgaa agccatggaa gctgtggctg 780
cccagggcaa ggccaagaag tgaaggccgg cggggaggat actgtcccca ggagcaccct 840
ccctgcccgt cttgtccctc tgccccctcc acctgcacat gtcacactga ccacatctgt 900
agacatcttg agttgtagct gcagacgggg accagtggct cccattttca ttttagccat 960
tttgtcgct gcacccactc cttcataca atctagtcag aatagcagtt ctagagcaca 1020
ggttctcagt ctaagctatg gaaaagctcc cttatccaa cagagtttaa aagtagtgac 1080
ttgggttttt gcgagtgtt tgtttactaa ggactttggg gaggaaccat gctaagccat 1140
gaccagtgag gagaagcaac agagcctgtc tgtcccatg agcggagtct gtccctctgt 1200
cttctgcagt caggtcactg cctactgcct gggggctcta gtcattccag tggaagacga 1260
atgtaacctg cgtggtgatg tgacaactgt ttctccctg accccagagg atctggctct 1320
aggttgggat caatcctgaa ttctgttatg tgttaattta cttttattaa aaaagtatag 1380
tatatataat acaaaacaat aacccttctg gggtttcttg tggcggttga aatagtccca 1440
catgtggtca tcagaaaata agccattcct cataccaata taggatcagc tccttgacct 1500
ctgaggggca ggagtgttc ctggtgtgtg tattagaatc cttcctgcc ttgtttcatg 1560
gcagtgaaat gcctcttggg cctgtccaag tgtatctttc actgatttct gaatcatgtt 1620
ctagttgctt gaccctgcc catgggtcca gtgttcatct gagcataact gtactaaatc 1680
ctttttccat atcagtataa taaaggagtg atgtgcaata aaaaaaaaaa aaaaaaaaaa 1740
aaaaaaaaaa aaaaaaaaaa aa 1762

```

```

<210> 8
<211> 951
<212> DNA
<213> Homo sapiens

```

```

<400> 8
attggtggga tgagcaatcc gagttcccgg atgagggaa atctctgcagt ataaaggag 60
caggggaaggc gggagacagc gcagtttgaa tcgcgggtgcg acgaaggagt aggtggtggg 120
atctcaccgt ggggtccgatt agccttttct ctgccttgct tgcttgagct tcagcggaat 180

```

tcgaaatggc tggcggttaag gctggaaagg actccggaaa ggccaagaca aaggcggttt 240
 cccgctcgca gagagccggc ttgcagttcc cagtgggccc tattcatcga cacctaaaat 300
 ctaggacgac cagtcattga cgtgtgggcg cgactgccgc tgtgtacagc gcagccatcc 360
 tggagtacct caccgcagag gtacttgaac tggcaggaaa tgcataaaaa gacttaaagg 420
 taaagcgtat taccctcgt cacttgcaac ttgtatttcg tggagatgaa gaattggatt 480
 ctctcatcaa ggctacaatt gctggtggtg gtgtcattcc acacatccac aaatctctga 540
 ttgggaagaa aggacaacag aagactgtct aaaggatgcc tggattcctt gttatctcag 600
 gactctaaat actctaacag ctgtccagtg ttggtgattc cagtggactg tatctctgtg 660
 aaaaacacaa ttttgccttt ttgtaattct atttgagcaa gttggaagtt taattagctt 720
 tccaaccaac caaatctctg cattcgagtc ttaaccatat ttaagtgtta ctgtggcttc 780
 aaagaagcta ttgattctga agtagtgggt ttgattgag ttgactgttt ttaaaaaact 840
 gtttggattt taattgtgat gcagaagtta tagtaacaaa catttggttt tgtacagaca 900
 ttatttccac tctggtggat aagttcaata aaggtcatat cccaaacaaa a 951

<210> 9
 <211> 4021
 <212> DNA
 <213> Homo sapiens

<400> 9
 ggtagccgcc ccgccccgcg gggcgccacg ggcggtctt ggcagcgccc actgagccag 60
 ccgggcccga ggtgccgcc ccgatacacg gtgtcccgcc caagctgac cgcgctctgcg 120
 gtcggtcggt gcgtgcgtgc gcctcgtcgg tccgcgtgtc tggccgagag ccccttctct 180
 ctgcggccat gactccgccg ccgcccgcgc cccctcccc gggccctgac cccgcggccg 240
 accccgcgcg ggaccctgc cctggcccg gatcactggt cgctctcttc ggggctacgg 300
 cgggtgcgtt gggacgggac ctgggctcgg acgagaccga cttaatcttc ctagtttggc 360
 aagtggttga gccgcggagc cgccaggtgg ggacgctgca caaatcgctg gttcgtgccg 420
 aggcgccgc actgagtacg cagtgcgcg aggcgagcgg cctgagcgcc gacagcctgg 480
 cgcgggcaga gccgctggac aaggtgctgc agcagttctc acagctggtg aacggggatg 540
 tggttttgcg gggcgggggc cctacatgc tctgcactga tgggcagcag ctattgcgac 600
 aggtcctgca ccccgaggcc tccaggaaga acctggtgct ccccgacatg ttcttctctt 660
 tctatgacct ccgaagagaa ttccatatgc agcatccaag cacctgccct gccagggacc 720
 tcactgtggc caccatggca cagggttag gactggagac agatgccaca gaggatgact 780

ttgggggtctg ggaagtcaag acaatggtag ctgttatcct ccatctactc aaagagccca	840
gcagtcaatt gttttcgaag cccgaggtga taaagcagaa atacgagacg gggccttgca	900
gcaaggctga tgtggtggac agtgagactg tggtagcggc tcgtgggttg cctggtgagt	960
catcagacca ggacgtggct cgcttcttca aagggtcaa cgtggccagg ggtggtgtag	1020
cactctgcct caacgcccag ggccgcagaa atggcgaggc cctcatccgc tttgtggaca	1080
gcgagcagcg ggacctagcg ctgcagagac acaagcacca catgggcgtc cgctatattg	1140
aggtgtataa agcgacaggg gaggagtttg taaagattgc agggggcaca tcactagagg	1200
tggctcgttt cttgtcacgg gaagaccaag tgatcctgcg gctgcgggga ctgcccttct	1260
cggctggggc aacggacgtg cttggcttcc tggggccaga gtgccagtg actgggggta	1320
ccgaggggct gctctttgtg cgccatcctg atggccggcc gactggtgat gccttcgccc	1380
tctttgcttg tgaggagctg gcacaggctg cactgcgcag gcacaagggc atgctgggta	1440
agcgatacat tgaactcttc cggagcactg cagccgaagt gcagcaggtc ttgaaccgct	1500
atgcatccgg cccactcctt cctacactga ctgcccact gctgcccac ccttcccac	1560
tggcacctgg gactgggagg gactgtgtac gcctccgagg cctgccctac acggccacca	1620
ttgaagacat cctgagcttt ctgggggagg cagcagctga cattcgccc caggtgtac	1680
acatggtgct caaccagcag ggccggccat cgggcgatgc cttcattcag atgacatcag	1740
cagagcgagc cctagctgct gctcagcgtt gccataagaa ggtgatgaag gagcgctacg	1800
tggaggtggc cccctgttcc acagaggaga tgagccgagt gctgatgggg ggcaccttg	1860
gccgcagtgg catgtccctt ccaccctgca agctgccctg cctctcacca cctacctaca	1920
ccaccttcca agccaccca acgctcattc ccacggagac ggcagctcta taccctctt	1980
cagcactgct cccagctgcc aggggtgctg ctgccccac cctgttgcc tactatccag	2040
ggccagccac tcaactctac ctgaactaca cagcctacta cccaagcccc ccagtctccc	2100
ccaccactgt gggctacctc actacacca ctgctgcctt ggctctgct cccacctcag	2160
tgttgtecca gtcaggagcc ttggtccgca tgcagggtgt cccatacacg gctggtatga	2220
aggatctgct cagcgtcttc caggcctacc agctaccgc tgatgactac accagtctga	2280
tgctgttggt tgaccacct cgcactgtgt tacaagcccc caaggaatgg gtgtgtttgt	2340
aggagagaaa gccaggaggt aagagccagc tgatatcctc ggcgaacatg tctctcctga	2400
gtccagaaga ccagcacctt caacctggta gcttctttct ggcttgtaa agctctcaga	2460
aggtacctag aggagcccaa gccccagctc cactctccac ttattctgcc tgtttcccc	2520

```

aaagacaatg gctggaccct gcatgcaggg ctgggggtgg aatggggcta accagctcct 2580
gatggcctga gccaggcatc ttgactggca cctggagagc ccttaagtct gtcctggctg 2640
tggcccatgc cgacagatat cgtggggctg acagggtccac ggcaggcttg ctttctttta 2700
taaaatggaa gctctggtac cttcaatgta tgactcctgg gagaatcaag ggtccatctg 2760
agcctctgag taaagatccc aatgttctac ctctccctgt cctctttgta ggggataggg 2820
aggcagagag agccagcccc taccctcaga gtatctggac ctcagagacc atgttgtgcc 2880
aggggtggtc ccacctaag atgctagccc ctctccaggt gggcataagg agtaacagat 2940
ggcaaaacca caaactatth tgatggactg tgctgcagta tcaccagaag acattagggg 3000
gcagtaggcc cccacacaaa accttcaggc ttgaatttta aaggggagga ctttctgcc 3060
acttttcttg tatgccttgg gaaagccagt tgccctgaac ccagcagaca ccatggaatg 3120
tcctttgcac gcattaaatg gtacagaact gaagcctcgg aagcaatttg gaactcgatc 3180
ttctcttctt taaatgaaaa gttattgacc aaatggactt tttaaaagac acaggaccct 3240
taactttgcc ccaaagttag gggctccaca ccaaccccag gcggaggaac actcagacag 3300
attaaggata ctgttgacct gtcaactgtt attatttcag cactaaaact gaggagcctc 3360
aactgctggc tcttcttccc tttgtatttg tgtaaggagc actgcactcc cataaaaggt 3420
tttaaaatac aaaatgtaca agaacacaca attccaagtg ctgtaaacad aactgagaac 3480
cagttccttt actaaacatc cattttataa aacacaaggt ttcaatttga gcccatctga 3540
gccttaaaga tccattctga ataccaaaaa cagggttca cagccaggcc cagaagaggt 3600
ctggtgataa tggctggccc tgggtgggga tagtttacac ccgggcagca gcaccacaca 3660
tgaacccaaa gacatgttct ttttaaagct gttttcagcc atgtttctct gtgcatctcc 3720
agtaagcaga aggctacca ttccattcct caacccaaga gctagcacag ttagagtagg 3780
agggggtgcg tactagcacg tgcccagttg ctcagtgtg ctagtagaaa ttgatttgca 3840
tagtccaatg gatgtgtgct ttaacaccac tatgttgac aaaaatttaa gtctttatct 3900
acaaagccaa aaaatattga ctcttaacac caaagctttt acaaagctga tataaaactg 3960
cttacatagt atacaaagct ctattttaaa atttaatgtt tattttaaat aggaaagcat 4020
t 4021

```

```

<210> 10
<211> 1636
<212> DNA
<213> Homo sapiens

<400> 10

```

```

cagtctacgc ttgcgcggcg caacagggcc gactgcagct ggaagatggc ggcgtccgtg      60
gtctgtcggg ccgctaccgc cggggcacia gtgctattgc gcgcccgcg ctcgccggcc      120
ctgctgcgga cgccagcctt gcggagtacg gcaaccttcg ctcaggcgct ccagttcgtg      180
ccggagacgc aggttagcct gctggacaac ggccctgcgtg tggcctccga gcagtcctct      240
cagcccactt gcacggtggg agtgtggatt gatgttggca gccgttttga gactgagaag      300
aataatgggg caggctactt tttggagcat ctggctttca agggaacaaa gaatcggcct      360
ggcagtgcgc tggagaagga ggtggagagc atgggggccc atcttaatgc ctacagcacc      420
cgggagcaca cagcttacta catcaaggcg ctgtccaagg atctgccgaa agctgtggag      480
ctcctgggtg acattgtgca gaactgtagt ctggaagact cacagattga gaaggaacgt      540
gatgtgatcc tgcgggagat gcaggagaat gatgcatcta tgcgagatgt ggtctttaac      600
tacctgcatg ccacagcatt ccagggcaca cctctagccc aggctgtgga ggggccagct      660
gagaatgtca ggaagctgtc tcgtgcagac ttgaccgagt acctcagcac acattacaag      720
gcccctcgaa tgggtgctggc agcagctgga ggagtggagc accagcaact gttagacctc      780
gcccagaagc acctcgggtg catcccatgg acatatgcag aggacgctgt gccactctt      840
actccatgcc gcttcactgg cagtgcagtc cgccaccgtg atgatgctct accttttgcc      900
cacgtggcca ttgcagtaga gggtcctggc tgggccagcc cggacaatgt ggccttgcaa      960
gtggccaatg ccatcatcgg ccaactatgac tgcacttatg gtgggtggcg gcacctgtcc     1020
agcccactgg cttcaggtgc tgtggccaac aagctatgcc agagtttcca gaccttcagc     1080
atctgctatg cagagacggg cttgctgggt gcacactttg tctgtgaccg aatgaaaatc     1140
gatgacatga tgttcgtcct gcaagggcag tggatgcgcc tgtgtaccag tgccacggag     1200
agtgaggtgg cccggggcaa aaacatcctc agaaatgccc tggatatctca tctagatggc     1260
actactcctg tgtgtgagga catcggaacg agcctcctga cctatggccg ccgcatcccc     1320
ctggctgaat gggaaagccg gattgcggag gtggatgcca gtgtggtacg tgagatctgc     1380
tccaagtaca tctatgacca gtgcccagca gtggctggat atggcccatc tgagcagctc     1440
ccagactaca accggatccg tagcggcatg ttctggctgc gcttctaggc gggaagccta     1500
tgtaagcaag agggcagggc cggggtttgt ggtccccccc ccaccacaaa cacagcactt     1560
cggctcctct aacctgtgcc acaggtgacc accaataaaa tcctctgctg agaagtgaag     1620
aaaaaaaaaa aaaaaa                                     1636

```

<212> DNA

<213> Homo sapiens

<400> 11

```

atataagcgt tggcggagcg tcggttgtag cactctgcgc gcccgctctt ctgctgctgt      60
ttgtctactt cctcctgctt ccccgccgcc gccggcccca tcatgagggg aatcgtgcac      120
ttgcaggccg ggcagtgcgg caaccaaate ggcgccaaagt tttgggaggt gatcagcgat      180
gagcacggca tcgacccac gggcacctac cacggggaca gcgacctgca gctggaacgc      240
atcaacgtgt actacaatga ggccaccggc ggcaagtacg tgccccgcgc cgtgctcgtg      300
gatctggagc ccggcaccat ggactccgtg cgctcggggc ccttcgggca gatcttccgg      360
ccggacaact tcgttttcgg tcagagtggg gctgggaaca actgggcca ggggcactac      420
acagaaggcg cggagctggg ggactcggg ctggatgttg tgagaaagga ggctgagagc      480
tgtgactgcc tgcagggttt ccagctgacc cactccctgg gtggggggac tgggtctggg      540
atgggtaccc tcctcatcag caagatccgg gaggagtacc cagacaggat catgaacacg      600
tttagtgtgg tgccctcgcc caaagtgtca gacacagtgg tggagcccta caacgccacc      660
ctctcagtc accagctcgt agaaaacaca gacgagacct actgcattga taacgaagct      720
ctctacgaca tttgcttcag aaccctaaag ctgaccacgc ccacctatgg tgacctgaac      780
cacctggtgt ctgctaccat gagtggggtc accacctgcc tgcgcttccc aggccagctc      840
aatgctgacc tgcggaagct ggctgtgaac atggtcccgt ttccccggct gcacttcttc      900
atgccccggt ttgccccact gaccagccgg gccagccagc agtaccgggc gctgaccgtg      960
cccagctca cccagcagat gtttgatgcc aagaacatga tggctgcctg cgacccccgc     1020
catggccgct acctgacggt tgccgccgtg ttcaggggcc gcatgtccat gaaggaggtg     1080
gatgagcaaa tgcttaatgt ccaaaacaaa aacagcagct attttgttga gtggatcccc     1140
aacaatgtga aaacggctgt ctgtgacatc ccacctcggg ggctaaaaat gtccgccacc     1200
ttcattggca acagcacggc catccaggag ctgttcaagc gcatctccga gcagttcacg     1260
gccatgttcc ggcgcaaggc cttcctgcac tggtaacagg gcgagggcat ggacgagatg     1320
gagttcaccg aggccgagag caacatgaat gacctggtgt ccgagtacca gcagtaccag     1380
gatgccacag ccgaggagga gggcgagttc gaggaggagg ctgaggagga ggtggcctag     1440
agccttcagt cactggggaa agcaggggaag cagtgtgaac tctttattca ctcccagcct     1500
gtcctgtggc ctgtcccact gtgtgcactt gctgttttcc ctgtccacat ccatgctgta     1560
cagacaccac cattaaagca ttttcatagt g                                     1591

```

<210> 12
 <211> 2543
 <212> DNA
 <213> Homo sapiens

<400> 12
 gctcttagac aaaccaacag cagcttcttc tgacatatac acacgcacac tcaccccgga 60
 cacacactca gcacactttt cctccatttg attaacagtg ctgcacacac aatgattacg 120
 ggaaagcgca aataaatacg gaaaggggtg cttattttga ctactggaag agctttgctg 180
 ggtctcagcg caacttttgt tttttattcc tgagaagggtg atctctccat gcggttctct 240
 cacacaagga ttctttaaaa gaggaagaga gacaagcaga ggggggagga cagtctttca 300
 ctttaagaac ggctgggctc aaagataaaa ggaagggaaa agcagcagca gcagcagcag 360
 cagcagcagc agcagcagca gcagcagcag cagcagcagg gaaaccaacg ctgcagcact 420
 tccgaaaggc atttttgatc catttctgag tgttgcggcc cgtttctcca ccgaagttgg 480
 ctccagctct agcagccgca ttggatccca cagcttactg cgagactccg gtgtacaatc 540
 cggatctctg cccaacatg attgcggccc aggccaagct ggtctaccat ctgaataaat 600
 actacaacga aaaatgccaa gccaggaaaag ctgccattgc caaaactatc cgggaagtct 660
 gcaaagtagt ttccgacgta ctgaaggaag tggaagtgca ggagccgcgg ttcacagct 720
 ctctcaacga gatggacaat cgctacgagg gcctcgaggt catctcccc accgaatttg 780
 aagtgggtgct ttatctcaac caaatggggg tgttcaactt cgtggacgat ggctcactgc 840
 ccggctgctc ggtgctgaag ttgagcgacg ggcgcaagag gagcatgtcc ctctgggtgg 900
 aattcattac cgctccggc tacctctcgg cgcgcaaaat ccggtccagg ttccagacgc 960
 tgggtggctca agcggtagac aaatgtagct accgggatgt ggtaaagatg gtggcagaca 1020
 ccagcgaagt gaaactgaga atccgagata ggtacgtggt gcagatcacg ccggccttta 1080
 aatgcaccgg gatctggccg aggagtgtg cccactggcc acttccccac atcccctggc 1140
 cgggacccaa ccgggtggcg gaggtcaagg cggaagggtt caatctcttg tccaaggagt 1200
 gccactcctt ggccggcaag cagagctcgg cggagagcga cgctgggtg ctgcagttcg 1260
 cggaggcaga gaacagactg cagatggggg gctgcagaaa gaagtgcctc tccatcctca 1320
 aaaccttaag ggatcgtcac cttgaactgc cgggccagcc cttgaacaat taccatatga 1380
 agactctggt ttctacgag tgtgaaaagc atccccgaga gtcggaactgg gacgagtctt 1440
 gcctgggtga tcggctgaac gggattttgc tgcaacttat ctctgctg cagtgcgggc 1500
 ggtgtcccca ctactttcta ccgaacttag atctgtttca aggcaaacct cactcagctc 1560
 tggaaaacgc tgccaaacaa acgtggcgac tggcaagaga gatcctgacc aacccgaaaa 1620

gtttgga aaa acttttagagg atgatttaaat caagagccga aattattacc cttctcaaag 1680
 tccttattaa gtgtaaactt ctgttcaatt cctaatatcc cactccgcag tgcaaacaat 1740
 ctcttccttt aaaaaggaat aataatacaa tatttaaaca tcatctcacc cccccccaca 1800
 aggggagaaa aagtagggga agcggatgga gaaaaacca aagccactag tattagaaga 1860
 cttctttcca cacgatttcc tatctccctt gaaaagtaca ccgtaacact ccgtaaacag 1920
 ccagctgta acgccagacc gagacgaaca ctctgcctaa ctatcaaagg attatagcaa 1980
 tcctggatgat ttaggtgcat ctgtctgtga gtaaacacga tttggatatg ccatctgaaa 2040
 gaaactgtaa tgtatatattt gatttgtaac aaatattgtg atctcacatt gtctttgaaa 2100
 gtgtggatgt tgggtgttttg tgatttggtg aacagaactt aaattgccat tctggatact 2160
 tccagacatt ttccactaac aaagatatca tttaaaggta gatttcttcc tgggtactttt 2220
 atctgtcttt gaaagtgtct gaactttaaa aagtttacat tttgtttcaa atattgcttg 2280
 ttctattttct aacattccat aaatatactt gaaatgttat ttaaataatat tcaaagaaat 2340
 ttgaattcag cttatataat aacgcttgaa tatctgaatt atatatttga aaaatgcact 2400
 tgaaatacac tggataatta cttttgtgat ttagatttta atttggtgct ggtttttatt 2460
 taattagatg gtaataaatg aagtaaaata aaagttgttg tgtctcactt taaaaaaaaa 2520
 aaaaaaaaaa aaaaaaaaaa aaa 2543

<210> 13
 <211> 4177
 <212> DNA
 <213> Homo sapiens

<400> 13
 aatttcgcta accgtgacgt catctcggtg cgccgttaca gcgcttaact ggaaactgcg 60
 atttagtttt tggtgaaagg agtggaaaaa aaccatgaac tgacctacc cgtcccat 120
 tgcttttagt ccttcacact ggcttcgcct gcactttggg caatggagcg ggaaaggaaa 180
 aggcacgcag gctgagctca aagtcgcgcc agccggggat gactcggcga cgccgccagg 240
 cgcgttaccc ggcgtgctcc gcgcggcgcc ggcgaaggga cgtgggggaa ggggcaggga 300
 ggaggaagcg gtggctgctg cggatgtcgg tgtgagcgag cggcgctga acacacggcg 360
 gctgccgagc gcctgaccg ggctgcgcc agagcctgca ccgagctccg gggccccaca 420
 cccgtacgg tggccctgcg cccgttgcta ctgaggcggc gtgctctgca ttcttcgctg 480
 tccaggcctg ccggctctgg tgtctgctgg ctccctcttg ctgcctgct cctctctgct 540
 tgctgagtc accgcgcgc cgccgccac agccatggcc gagagtggg aaagcggcgg 600

tctctcgggc tcccaggata gcgcgcgcgg agccgaaggt gctggcgccc ccgcggccgc	660
tgcctccgcg gagcccaaaa tcatgaaagt caccgtgaag accccgaagg aaaaggagga	720
attcgccgtg cccgagaata gctccgtcca gcagtttaag gaagaaatct ctaaactgttt	780
taaatcacat actgaccaac ttgtgttgat atttgctgga aaaattttga aagatcaaga	840
taccttgagt cagcatggaa ttcattgatgg acttactgtt caccttgatca ttaaaacaca	900
aaacaggcct caggatcatt cagctcagca aacaaatata gctggaagca atgttactac	960
atcatcaact cctaatagta actctacatc tggttctgct actagcaacc ctttttggttt	1020
aggtggcctt gggggacttg cagggtctgag tagcttgggt ttgaatacta ccaacttctc	1080
tgaactacag agtcagatgc agcgacaact tttgtctaac cctgaaatga tgggtccagat	1140
catggaaaat ccctttgttc agagcatgct ctcaaactct gacctgatga gacagttaat	1200
tatggccaat ccacaaatgc agcagttgat acagagaaat ccagaaatta gtcattatgtt	1260
gaataatcca gatataatga gacaaacgtt ggaacttgcc aggaatccag caatgatgca	1320
ggagatgatg aggaaccagg accgagcttt gagcaacctt gaaagcatcc cagggggata	1380
taatgcttta aggcgcagtgt acacagatat tcaggaacca atgctgagtg ctgcacaaga	1440
gcagtttggt ggtaatccat ttgcttcctt ggtgagcaat acatcctctg gtgaaggtag	1500
tcaaccttcc cgtacagaaa atagagatcc actacccaat ccatgggctc cacagacttc	1560
ccagagttca tcagcttcca gcggcactgc cagcactgtg ggtggcacta ctggtagtac	1620
tgccagtggc acttctgggc agagtactac tgcgccaaat ttggtgcctg gagtaggagc	1680
tagtatgttc aacacaccag gaatgcagag cttgttgcaa caaataactg aaaaccaca	1740
actgatgcaa aacatgttgt ctgcccccta catgagaagc atgatgcagt cactaagcca	1800
gaatcctgac cttgctgcac agatgatgct gaataatccc ctatttgctg gaaatcctca	1860
gcttcaagaa caaatgagac aacagctccc aactttcctc caacaaatgc agaatcctga	1920
tacactatca gcaatgtcaa accctagagc aatgcaggcc ttgttacaga ttcagcaggg	1980
tttacagaca ttagcaacgg aagccccggg cctcatccca gggtttactc ctggcttggg	2040
ggcattagga agcactggag gctcttcggg aactaatgga tctaacgcca cacctagtga	2100
aaacacaagt cccacagcag gaaccactga acctggacat cagcagttta ttcagcagat	2160
gctgcaggct cttgctggag taaatcctca gctacagaat ccagaagtca gatttcagca	2220
acaactggaa caactcagt caatgggatt ttgaaccgt gaagcaaact tgcaagctct	2280
aatagcaaca ggaggtgata tcaatgcagc tattgaaagg ttactgggct ccagccatc	2340

atagcagcat	ttctgtatct	tgaaaaaatg	taattttattt	ttgataacgg	ctcttaaact	2400
ttaaaatacc	tgcttttattt	catttttgact	cttggaattc	tgtgctgtta	taaacaaacc	2460
caatatgatg	catttttaagg	tggagtacag	taagatgtgt	gggtttttct	gtatttttct	2520
tttctggaac	agtgggaatt	aaggctactg	catgcatcac	ttctgcattt	attgtaattt	2580
tttaaaaaca	tcacctttta	tagttgggtg	accagatttt	gtcctgcac	tgtccagttt	2640
atttgctttt	taaacattag	cctatggtag	taattttatgt	agaataaaaag	cattaaaaag	2700
aagcaaatca	tttgcactct	ataattttgtg	gtacagtatt	gcttattgtg	actttggcat	2760
gcattttttgc	aaacaatgct	gtaagattta	tactactgat	aattttgttt	tattttgtata	2820
caatatagag	tatgcacatt	tgggactgca	tttctggaaa	catactgcaa	taggctctct	2880
gagcaaaaaca	cctgtaacta	aaaaagtga	gataagaaaa	tactcttaaa	gctgagtatt	2940
tcctaattgt	atagaatctt	acagcatctt	tgacaaacat	ctcccagcaa	aagtgccggt	3000
tagtcagggt	tgttgaaaat	acagtagaaa	agctgattct	ggttatctct	ttaaggacaa	3060
ttaattgtac	agacacataa	tgtaacattg	tctcaacatt	cattcacaga	ttgactgtaa	3120
attaccttaa	tctttgtgca	gactgaagga	acactgtagt	ataccccaa	gtgcatttgc	3180
ctaggacttc	tcagcttctc	ccataggtag	tttaacaggc	attaaaattt	gtaattgaaa	3240
tgttgctttc	actgaaaaag	tgtcttgatg	tttcagttat	ttttaatcgc	cataaaaaaa	3300
tagaactatc	ttttgggttt	atctgttttc	tcatgcacag	gcaatacaca	aatttaaaat	3360
gagttgtgag	ccaattgttt	ctgaagtgtt	ttggtagttc	tattaagaaa	tagttaaata	3420
ttgtgctttt	cagagcctca	gagaaagggg	gacgggggtg	gggggtgggg	cagcggaatc	3480
tgtcctggat	ggggccagct	taaataatac	tggcaaccaa	gattctgtta	ggatttctgt	3540
gcatatagtg	tagtaaagaa	gtatcattca	ggggtgaaaa	acaaagagcc	gttttaatga	3600
tgttgagtac	atttggtgtg	tttatagcct	ttttcttccc	tccccaaaag	aattctgttt	3660
gcctaactcc	caaactgttg	gggtggtaca	ttcctttagg	accaattaaa	acataattga	3720
gggtcagtga	tacatttggc	tgactctggg	tcagtattct	cttaggtgat	tatattctct	3780
catgtacagt	tacaggaaat	taaaatgtta	aagtaaccta	aatgaattc	agaccaataa	3840
aatcaaggga	aatacaagtt	gattgcatta	cttctgtatg	ttgcttgcta	ttaaaaaggt	3900
taagaggcca	ggttaccac	cagtccttgc	actgttctga	cactttcccc	aggaggaaaa	3960
caagtacaaa	ggttacgggtg	gaggcataag	tagaagagat	tgttaagaag	ggtattcatg	4020
tgtctttgct	ctttctgctt	tatgcctcag	tttggtttaa	aaacttctgt	actggcaaat	4080
ggtggtattc	agtgtgggat	agtgtcataa	ctaatttgac	aattttattaa	tcataaaaata	4140

acaataaatc tctagctttt acacttgaaa aaaaaaa

4177

<210> 14

<211> 4093

<212> DNA

<213> Homo sapiens

<400> 14

aatttcgcta accgtgacgt catctcggtg cgccgttaca gcgcttaact ggaaactgcg	60
atttagtttt tgggtgaaagg agtggaaaaa aaccatgaac tgacctacc cgccccattt	120
tgcttttagt ccttcacact ggcttcgcct gcactttggg caatggagcg ggaaaggaaa	180
aggcacgcag gctgagctca aagtcgcgcc agccggggat gactcggcga cgccgccagg	240
cgcggttacc ggcggtgctcc gcgcggcgcc ggcgaaaggga cgtgggggaa ggggcagggg	300
ggaggaagcg gtggctgctg cggatgtcgg tgtgagcgag cggcgctga acacacggcg	360
gctgccgagc gcctgaccgc ggctgcgcc agagcctgca ccgagctccg gggccccaca	420
cccgtacgg tggcctgcg cccgttgcta ctgaggcggc gtgctctgca ttcttcgctg	480
tccaggcctg ccggtcttg tgtctgctgg ctctccttg ctgcctgct cctcctgct	540
tgctgagtc accgcgcgc ccgcgccac agccatggcc gagagtggg aaagcggcgg	600
tcctccgggc tcccaggata gcgcgcgcgg agccgaagg gctggcgccc ccgcggccgc	660
tgctccgcg gagcccaaaa tcatgaaagt caccgtgaag accccgaagg aaaaggagga	720
attcgccgtg cccgagaata gctccgtcca gcagtttaag gaagaaatct ctaaactgtt	780
taaatcacat actgaccaac ttgtgttgat atttgctgga aaaattttga aagatcaaga	840
taccttgagt cagcatggaa ttcatgatgg atttactgtt caccttgtca ttaaacaca	900
aaacaggcct caggatcatt cagctcagca aacaaatata gctggaagca atgttactac	960
atcatcaact cctaatagta actctacatc tggttctgct actagcaacc cttttggttt	1020
aggtagcctt gggggacttg caggctctgag tagcttgggt ttgaatacta ccaacttctc	1080
tgaactacag agtcagatgc agcgacaact tttgtctaac cctgaaatga tggccagat	1140
catggaaaat ccctttgttc agagcatgct ctcaaactct gacctgatga gacagttaat	1200
tatggccaat ccacaaatgc agcagttgat acagagaaat ccagaaatta gtcatatgtt	1260
gaataatcca gatataatga gacaaacgtt ggaacttgcc aggaatccag caatgatgca	1320
ggagatgatg aggaaccagg accgagcttt gagcaaccta gaaagcatcc cagggggata	1380
taatgcttta aggcgcatgt acacagatat tcaggaacca atgctgagtg ctgcacaaga	1440
gcagtttggt ggtaatccat ttgcttcctt ggtgagcaat acatcctctg gtgaaggtag	1500

tcaaccttcc	cgtacagaaa	atagagatcc	actaccaat	ccatgggctc	cacagacttc	1560
ccagagttca	tcagcttcca	gcggcactgc	cagcactgtg	ggtggcacta	ctggtagtac	1620
tgccagtggc	acttctgggc	agagtactac	tgcgccaaat	ttggtgcctg	gagtaggagc	1680
tagtatgttc	aacacaccag	gaatgcagag	cttgttgcaa	caaataactg	aaaaccacaca	1740
actgatgcaa	aacatgttgt	ctgcccccta	catgagaagc	atgatgcagt	cactaagcca	1800
gaatcctgac	cttgctgcac	agatgcagaa	tcctgataca	ctatcagcaa	tgtcaaacc	1860
tagagcaatg	caggccttgt	tacagattca	gcagggttta	cagacattag	caacggaagc	1920
ccccggcctc	atcccagggt	ttactcctgg	cttgggggca	ttaggaagca	ctggaggctc	1980
ttcgggaact	aatggatcta	acgccacacc	tagtgaaaac	acaagtccca	cagcaggaac	2040
cactgaacct	ggacatcagc	agttttattca	gcagatgctg	caggctcttg	ctggagtaaa	2100
tcctcagcta	cagaatccag	aagtcagatt	tcagcaacaa	ctggaacaac	tcagtgcaat	2160
gggatttttg	aaccgtgaag	caaacttgca	agctctaata	gcaacaggag	gtgatatcaa	2220
tgcagctatt	gaaagggttac	tgggctccca	gccatcatag	cagcatttct	gtatcttgaa	2280
aaaatgtaat	ttatttttga	taacggctct	taaacttta	aatacctgct	ttatttcatt	2340
ttgactcttg	gaattctgtg	ctgttataaa	caaaccat	atgatgcatt	ttaagggtga	2400
gtacagtaag	atgtgtgggt	ttttctgtat	ttttcttttc	tggaacagtg	ggaattaagg	2460
ctactgcatg	catcacttct	gcattttattg	taatttttta	aaaacatcac	cttttatagt	2520
tgggtgacca	gattttgtcc	tgcatctgtc	cagttttattt	gcttttttaa	cattagccta	2580
tggtagtaat	ttatgtagaa	taaaagcatt	aaaaagaagc	aatcattttg	cactctataa	2640
tttgtggtac	agtattgctt	attgtgactt	tggcatgcat	ttttgcaaac	aatgctgtaa	2700
gattttatact	actgataatt	ttgttttatt	tgtatacaat	atagagtatg	cacatttggg	2760
actgcatttc	tggaaacata	ctgcaatagg	ctctctgagc	aaaacacctg	taactaaaaa	2820
agtgaagata	agaaaatact	cttaaagctg	agtatttcct	aattgtatag	aatcttacag	2880
catctttgac	aaacatctcc	cagcaaaaagt	gccggttagt	caggtttggt	gaaaatacag	2940
tagaaaagct	gattctgggt	atctctttta	ggacaattaa	ttgtacagac	acataatgta	3000
acattgtctc	aacattcatt	cacagattga	ctgtaaatta	ccttaatctt	tgtgcagact	3060
gaagggaacac	tgtagtatac	cccaaagtgc	atttgcttag	gacttctcag	cttctcccat	3120
aggtagttta	acaggcatta	aaatttgtaa	ttgaaatggt	gctttcactg	aaaaagtgtc	3180
ttgatgtttc	agttattttt	aatcgccata	aaaaaataga	actatctttt	gggttttatct	3240

gttttctcat gcacaggcaa tacacaaatt taaaatgagt tgtgagccaa ttgtttctga 3300
 agtgttttgg tagttctatt aagaaatagt taaatattgt gcttttcaga gcctcagaga 3360
 aagggggacg ggggtggggg gtggggcagc ggaatctgtc ctggatgggg ccagcttaaa 3420
 taatactggc aaccaagatt ctgttaggat ttctgtgcat atagtgtagt aaagaagtat 3480
 cattcagggg tgaaaaacaa agagccgttt taatgatgtt gagtacattt ggctgtttta 3540
 tagccttttt cttccctccc ccaaagaatt ctgtttgcct aactcccaaa ctgttgggggt 3600
 ggtacattcc tttaggacca attaaaacat aattgagggt cagtataca tttggctgac 3660
 tctggttcag tattctctta ggtgattata ttctctcatg tacagttaca ggaaattaaa 3720
 atgttaaagt aacctaaaat gaattcagac caataaaatc aagggaata caagttgatt 3780
 gcattacttc tgtatgttgc ttgctattaa aaaggtttaag aggccagggt acccaccagt 3840
 ccttgactg ttctgacact ttccccagga ggaaaacaag taaaagggtt acggtggagg 3900
 cataagtaga agagattgtt aagaagggtt ttcatgtgtc ttgctcttt ctgctttatg 3960
 cctcagtttg gtttaaaaac ttctgtactg gcaaatggtg gtattcagtg tgggatagtg 4020
 tcataactaa tttgacaatt tattaatcat aaaataacaa taaatctcta gcttttacac 4080
 ttgaaaaaaaa aaa 4093

<210> 15
 <211> 2005
 <212> DNA
 <213> Homo sapiens

<400> 15
 gcggattccc gccccgaggt ttctaaatcc agacattccc gtttggctga gcactctagg 60
 cctacatcca tgaagctagg agagcgacac tcaaagactg cactattgag agaagctaac 120
 gttaaaggca gtgaatatat tcgggagtcc agctccgga cccgggagct ctttttagtg 180
 gaggggaggc gctgatggcg cttctggcct ccgaatgcta gggggcgctg tgatcgccgg 240
 gcggcctctt gggcgctggg agtccaccgc gcaagcgcat cctggccttt cttcagtc 300
 cacgtgcgat ccttcccggc aactttttcg agaaaaatgc ccaaattcaa ggcggcccgt 360
 ggggtggggg gtcaggaaaa acatgcgccc ctggccgatc agatcctggc tgggaatgag 420
 gtgcgggagg ggggtccggga gaagcggcgg ggtcgcggga caggagaagc ggaggaagag 480
 tatgtggggc cccggctgag ccgacggatt ttgcagcaag cacggcagca acaggaggaa 540
 ctgagggccg agcatgggac tggggacaag cccgcggcgc cgcgggaacg caccacgcgg 600
 ctgggtccaa gaatgcctca ggatggatca gatgacgagg acgaggagtg gccaccctg 660

gagaaggctg ccacaatgac agcagcgggc catcatgcag aggtgggttg ggaccctgag 720
 gatgagcgtg ccatagagat gttcatgaac aagaaccctc ctgccaggcg caccctggct 780
 gacatcatca tggagaagct gactgagaag cagacagagg ttgagacagt catgtcagag 840
 gtgtcgggct tccctatgcc ccagctggac ccccggtcc tagaagtgtc caggggggtc 900
 cgggaggtat tatctaagta ccgcagtga aaactgcca aggcatttaa gatcatccct 960
 gcactctcca actgggagca aatcctctac gtcacagagc cggaggcctg gactgcagct 1020
 gccatgtacc aggccaccag gatttttgcc tctaacctga aggaacgcat ggcccagcgc 1080
 ttctacaacc ttgtcctgct ccctcgagta cgagatgacg ttgctgaata caaacgactc 1140
 aacttccatc tctacatggc tctcaagaag gcccttttca aacctggagc ctgggttcaaa 1200
 gggatcctga ttccactgtg cgagtctggc acttgtacct tccgggaagc catcattgtg 1260
 ggtagcatca tcaccaagtg ctccatccct gtgttgactc ccagtgcggc catgctgaaa 1320
 attgctgaga tggaatacag cggtgccaac agcatcttcc tgcgactgct gctggataag 1380
 aagtatgcac tgccttaccg ggtgctggat gccctagtct tccacttccct ggggttccgg 1440
 acagagaagc gtgaactgcc tgtgctgtgg caccagtgcc tctgacttt ggtccagcgc 1500
 tacaaggccg acttggccac agaccagaaa gaggcctct tagaactgct ccggctgcag 1560
 ccccatccac agctatcgcc cgaaatcagg cgtgagcttc agagtgcagt ccccgcgat 1620
 gtggaagatg ttcccatcac cgtggagtga ggaaaacagt cagctgtcct ggccaaaggg 1680
 gtttggaagg acaccaagac ccccgttggt gactgaagat gacactgagc tttaatggct 1740
 gaagaccag atcagggcag tgacagatca caggacatc tgtggctccc agtccaggac 1800
 aggaaggact gagggctggt ctggttccct ctccattct aggcccttat ccctgtttag 1860
 ttctgagagc caacttgaga taccatatgc tagcattccc agtccccagc tggggcttgg 1920
 tgtgagtact ttttctatgg ctattgtgtc aggtcactgt ggataaaggc aaagacagat 1980
 atttattgaa aaaaaaaaaa aaaaa 2005

<210> 16

<211> 990

<212> DNA

<213> Homo sapiens

<400> 16

agtctcgcgc gcgggcggag gtgggccggt gcggcgctgt cacgtaggtt cagtgggcgg 60
 aagaggtggc cccgatgct gcggcgcccc ctggccgggc tggtgcggc cgccctgggc 120
 cgggccccac cggacggcat gtcgggcccc aggcctgtgg tgctgagcgg gccttcggga 180

gctgggaaga gcacctgct gaagaggctg ctccaggagc acagcggcat ctttggcttc 240
 agcgtgtccc ataccacgag gaacccgagg cccggcgagg agaacggcaa agattactac 300
 tttgtaacca gggaggtgat gcagcgtgac atagcagccg gcgacttcat cgagcatgcc 360
 gagttctcgg ggaacctgta tggcacgagc aaggtggcgg tgcaggccgt gcaggccatg 420
 aaccgcatct gtgtgctgga cgtggacctg caggggtgtgc ggaacatcaa ggccaccgat 480
 ctgcggccca totacatctc tgtgcagccg ccttcaactgc acgtgctgga gcagcggctg 540
 cggcagcgca aactgaaac cgaggagagc ctggtgaagc ggctggctgc tgcccaggcc 600
 gacatggaga gcagcaagga gcccggcctg tttgatgtgg tcatcattaa cgacagcctg 660
 gaccaggcct acgcagagct gaaggaggcg ctctctgagg aaatcaagaa agctcaaagg 720
 accggcgctt gaggtttgct gtctgttctc ggcaccccg gcccatacag gaccagggca 780
 gcagcattga gccacccctt tggcaggcga tacggcagct ctgtgccctt ggccagcatg 840
 tggagtggag gagatgctgc cctgtggtt ggaacatcct ggggtgaccc ccgaccagc 900
 ctcgctgggc tgtcccctgt cctatctct cactctggac ccagggtga catcctaata 960
 aaataactgt tggattagaa actccataaa 990

<210> 17
 <211> 1120
 <212> DNA
 <213> Homo sapiens

<400> 17
 agtctcgcgc gcgggcggag gtgggcccgt gcggcgctgt cacgtaggtt cagtgggcgg 60
 aagaggtggc cccggatgct gcggcgcccg ctggccgggc tggctgcggc cgccctgggc 120
 cgggccccac cggacggctt gctctgctct ttacctgggg ttgctgtcga ggacctgtg 180
 caagactcgg ccggtttttc tttctccctg atggacagac ccaaacatag ccgcgcagca 240
 tcgtgaaggg ctggggcctt cactcctctg tggctctgga agagcccgat ttcctcagga 300
 ggcattgtcg gcccaggcc tgtggtgctg agcgggcctt cgggagctgg gaagagcacc 360
 ctgctgaaga ggctgctcca ggagcacagc ggcattcttg gcttcagcgt gtcccatacc 420
 acgaggaacc cgaggcccg cgaggagaac ggcaaagatt actactttgt aaccaggggag 480
 gtgatgcagc gtgacatagc agccggcgac ttcacgagc atgccgagtt ctcggggaac 540
 ctgtatggca cgagcaagggt ggcggtgcag gccgtgcagg ccatgaaccg catctgtgtg 600
 ctggacgtgg acctgcaggg tgtgcggaac atcaaggcca ccgatctgcg gcccatctac 660
 atctctgtgc agccgccttc actgcacgtg ctggagcagc ggctgcggca gcgcaacact 720

gaaadcgagg agagcctggt gaagcggctg gctgctgccc aggccgacat ggagagcagc 780
 aaggagcccc gcctgtttga tgtggtcatc attaacgaca gcctggacca ggcctacgca 840
 gagctgaagg aggcgctctc tgaggaaatc aagaaagctc aaaggaccgg cgctgaggc 900
 ttgctgtctg ttctcggcac cccgggcccc tacaggacca gggcagcagc attgagccac 960
 ccccttgga ggcgatacgg cagctctgtg cccttgacca gcatgtggag tggaggagat 1020
 gctgcccctg tggttggaac atcctggggg gacccccgac ccagcctcgc tgggctgtcc 1080
 cctgtcccta tctctcactc tggaccagg gctgacatcc 1120

<210> 18
 <211> 904
 <212> DNA
 <213> Homo sapiens

<400> 18
 cagacagacc caccacaggc tgactacaga ggctgcacct cagcaaacag gcatgtcggg 60
 cccagggcct gtggtgctga gcgggccttc gggagctggg aagagcacc tgctgaagag 120
 gctgctccag gagcacagcg gcatctttgg cttcagcgtg tcccatacca cgaggaaccc 180
 gaggccccggc gaggagaacg gcaaagatta ctactttgta accagggagg tgatgcagcg 240
 tgacatagca gccggcgact tcatcgagca tgccgagttc tcggggaacc tgtatggcac 300
 gagcaagggtg gcggtgcagg ccgtgcaggc catgaaccgc atctgtgtgc tggacgtgga 360
 cctgcagggg gtgcggaaca tcaaggccac cgatctgcgg cccatctaca tctctgtgca 420
 gccgccttca ctgcacgtgc tggagcagcg gctgcggcag cgcaacactg aaaccgagga 480
 gagcctgggtg aagcggctgg ctgctgcccc ggccgacatg gagagcagca aggagcccg 540
 cctgtttgat gtggtcatca ttaacgacag cctggaccag gcctacgcag agctgaagga 600
 ggcgctctct gaggaaatca agaaagctca aaggaccggc gcctgaggct tgctgtctgt 660
 tctcggcacc ccgggccccat acaggaccag ggcagcagca ttgagccacc cccttggcag 720
 gcgatacggc agctctgtgc ccttggccag catgtggagt ggaggagatg ctgcccctgt 780
 ggttgggaaca tcctgggggtg accccccgacc cagcctcgtt gggctgtccc ctgtccctat 840
 ctctcactct ggaccagggt ctgacatcct aataaaataa ctgttggtt agaaactcca 900
 taaa 904

<210> 19
 <211> 6255
 <212> DNA
 <213> Homo sapiens

<400> 19

actcgcctgg agcgcgcggg caaggcgggc ggagcgcact ggaactcaag ggggcgcaca	60
gcggcgcgct cgcaccgctc ggctccgcgc ggctctagga ggtggcggcg gtggcgggtgg	120
cggcgggtggc ggcgggcgcg gcggcggggc gcagggctga gcgagcgtcc gggttccggg	180
gctccgggga aggcgggttg agctcctgag tgcagcgcgg ctctctgcca ctgtcccggc	240
ccggccacct ctctgtcatg gctctggcgg acagcacacg tggattaccc aacgggggcg	300
gcggcggggg cggcagtggc tctctgctgt cctccgcgga gccaccgctc ttccccgaca	360
tcgtggagct gaacgtgggg ggccagggtg acgtgaccgc gcgctgcacg gtggtgtcgg	420
tgcccgaact gctgctctgg cgcattgttc cgcagcagca gccgcaggag ctggcccggg	480
acagcaaagg ccgcttcttt ctggaccggg acggcttcct ctcccgctac atcctggatt	540
acctgcggga cttgcagctc gtgctgccc actacttccc cgagcgcagc cggctgcagc	600
gcgaggccga gtacttcgag ctgccagagc tcgtgcgccg cctcggggcg cccagcagc	660
ccggcccggg gccgcgccc tcgcggcgcg ggggtgcacaa ggagggtctg ctgggtgacg	720
agctgctgcc gcttggttac tcggagccc aacagcagga gggcgctct gccggggcg	780
cgtcggccac gctggagctg gctagccgca gtccgtccgg gggcgcgcg ggcccgtgc	840
tcacgcgctc ccagtcgctg gacggcagcc ggcgctcggg ctacatcacc atcggctacc	900
gcggctccta caccatcggg cgggacgcgc aggcggacgc caagtccgg cgagtggcg	960
gcatcaccgt ttgcggaaag acgtcgtggt ccaaggaggt gtttggggac accctgaacg	1020
aaagccggga ccccgaccgt ccccgaggc gctacacctc gcgctattac ctcaagttca	1080
acttcttga gcaggccttc gacaagctgt ccgagtcggg ctccacatg gtggcgtgca	1140
gctccacggg cacctgcgcc tttgccagca gcaccgacca gagcgaggac aagatctgga	1200
ccagctacac cgagtacgtc ttctgcagg agtgagctcc ccagacccc tcgccactcc	1260
agcggccagt ccttctctg cccgagagat gattacagag cctcttgtcc cacctttgtc	1320
ccctggctgc tgccctccca ttctccccct ccagtagtag ctgggtgaga cctgtccgcc	1380
caccttccct ccactacaga acctgcagcc gcaaatactc tgggctgctt cgtcttcttt	1440
ggacctctg aaccgagaga acccagagga acccccacc caccaccacc taccactcca	1500
tgctttctct actccctgcc tcaaaccacc cctccccag atggtacttc agtttggatc	1560
tattggggga gtgtggccac agaccgggg atgattgaat tggtcagaac ctgattggac	1620
cgtgtccaat gtgcggaaga tttccttgaa atcttctcaa gctcttatga ctactgggg	1680
gtttaagaga tcaggattgg ttccactgtc tggggtagt gttttacaag gtcattacac	1740

agtctttttg acctcttttg aaggtagagt tttagaaggc tggatggaag attctgagcc	1800
tggaattagg accccatgga ggcagttcag taactaaact aataaagttt tgaaaagtta	1860
cacgtaaagt agaagaatct agtgcgtagg acagtaaagg atcctttctc gtacagaata	1920
aaaggctctca gcctgtagct taaacttata gaaagtgatc cgctgcctg cagaggcgcc	1980
cttttcagct gctgctcgcc agaagccctt gattccactg gttgacatgg cagcagttac	2040
tggcaagagg gagaaaggac gctgccgctt aagagtgcaa ggctgctcag gtctccaagc	2100
gccgtaggag gtcacctggc agtgactgta gggagctggg tcatagtgca cgtcgtgggt	2160
attaggaaaag cctgtattct ttcaatgaat gtcagtagga ccttccttta gctgtaagac	2220
ttggtgggcg ggggtgggtg gggagggagg aaagggtagg aagggtgga agggagaagc	2280
agacatagtc atttatgatt tgaaagttgg aagtttgtac catctgtttg agtatatgca	2340
catttaaaaa atatcatata gttaatgcaa acatgccaa gattttataa agattaataa	2400
cagacctact cttacctggc agtttactta acttactgtt ttgagtccta aacttagagt	2460
tggttaatgct tatatataat ctaaccaaag agttaccag tagggtttta gttttgaac	2520
ttttattttc ttgttgatta taaatcctga ttttggaatc tattgcgcaa agaagtttc	2580
attttggtta cttagacctt agatcactta ttaaaaatcc ttattttctc caagcccagc	2640
aaacgttgac ttctgggcaa acctgaaaac ctgaaaatgc cactttcatg cagtttgttt	2700
gaagttaagt ggaatccttt caaatgacga gctgcagaga actcagcacc aagggtgccc	2760
tatctgtaga tagctgtaaa atggaatatt tttaaataag ggcaaataag tacttaaaag	2820
tgagctgagc aataaaatgg tccaataata ggtaaatgca acagaaacag aaggagacct	2880
ggttgcctta tgcctttact cttacatgga ataaattccc aatgcatatc ctatgtaaac	2940
cataagtga gggaaataaa cctcgtcatg ctccatgctg tgagggtgtcc tttggatatt	3000
ctgtgatgac agagaagcct attttgtttt gttttcagca tctttctctg atgtacgttt	3060
ttaaggattt tgtaagagct gttttcagtg tttaaattag tgctattttt ccttggtttt	3120
aaaaatgaat ctctactgt atcttactat gtccatacag atgttacaaa tcgacagttt	3180
tattcttaga ctcatgtgat ccaagctgta tataccatat ataaacattt tacatgaatc	3240
atthagtttt ttaattcatt tactaatgct ataaaatttc ctatattacc ccagtaattt	3300
gcatcagctg gtttatatac taaagcaaca tgttttgatg agtttcttac atccttatcg	3360
aggaattggg ttaggaaaaa atacataatt gtaaaactga gtttgctgta ttatactttt	3420
tttcttgagt attagttgta ttactaatca tatgttgatt aactgtctac ttaaagtcaa	3480
ggtacctgta tttttaatcc actaattttt ttttagttgg gaaatagatt tcagggtcttt	3540

tattagacta acattttttg agaagtaaaa ttgacttcat atacaaagcc tgtaatttta	3600
ggcgaaatgg aagcagaaat ctaggaagtt gtgcttgctt gtatgttgag tttggtctca	3660
gactaagtaa tgcacagaa ttcactctgtt tgaagcctga aataatttag gactctgatt	3720
cactgaccaa aagtcagtgt tgcagagatt tctctacccc gtatggtatt ttgttagatt	3780
gttcaacagg aagcacatga ttgagaacat cttgggacag accaaaacca ctgacagatg	3840
gcaaggctcg gcgattctga tttcccttct caaatctgct caactccaag agtcttgaga	3900
aactgctaaa attttgctc tgtcactcaa gtcttacaaa tgttatcttg taaacctttg	3960
aggtgaacta ttccactgtc ttgtacatag gcactcttatt cactgcaccc tgtcacaccc	4020
agcaccccc gccccgcaca ttatttgaaa gactgggaat ttaatggta gggacagtaa	4080
atctacttct ttttccaggg acgactgtcc cctctaaagt taaagtcaat acaagaaaac	4140
tgtctatttt tagcctaaag taaaggctgt gaagaaaatt cattttacat tgggtagaca	4200
gtaaaaaaca agtaaaataa cttgacatga gcacctttag atcccttccc ctccatgggc	4260
tttgggccac agaatgaacc tttgaggcct gtaaagtgga ttgtaatttc ctataagctg	4320
taatagtgga ggtattgtgg gttcatttga gtaagccctc caaagatacc attcaaataa	4380
cctgggagaa tgtcataaat tattcagata attaacactg catgaatctg attcagaggc	4440
atgcatttac atatgttgcc ctaattacca tttgatgatc ataaatacaa gtgaatgaca	4500
ttggactttt agtaacaaac ttaattttta aaaagggtga gacaatggtg gttaaaaaaa	4560
aaaaaaaaac aggtaccagg ttctgtgtgt ttgcaccaag taattgacat gttttttaat	4620
acatgtggac catgaacagt attcattcta ctttttcaa tgatatgctg tagaaaatat	4680
tccttgaaga tgtgagattt aaaaattttt ccctttcaat gttgttatgt attctactgg	4740
tttttgattg atagcacagt gataaatcat aatactagac aaaattgtct tctctttcaa	4800
accagagcca tatatatgtc tgtatatatg ggacctactg cttctctgag gaaatgcata	4860
atctgttaat atcagacaaa atgagcaatt ggcagtgtc ataatatatt ccaattttta	4920
ttggaatttt cgatggaatg ttattttcaat aaagccatgt aagggtgaaac tttgataact	4980
ttttactctt caagttaggg taaattctga tccaatatc aattcatttg tgtactccca	5040
catgcaaaat gctaaattac aatgcagaca ttaagaaaaa gtattgactg gaggggttga	5100
attccttgag aatttatttt atagtctaaa tcacaaatac tttactcaat ttagttttta	5160
aaatagtaaa ctgaatattt ttgttgtaag cctatcagag tcaatccttc gtttggaatt	5220
gttttcctgt ttttccttac tataaatcat ttaaaaactg aattcatttt cttagatggc	5280

ataagtctgt ctcttgagaa ataagtaaaa tactcctatt ttcagtatct gtagcacctg 5340
 aaataggtct ttgtatagcc agaaacaagt tatgttgaag ttagcttttc tttgtcaaca 5400
 gttttggaca ataaaaatct gaaagtatta acacttgatt ttctactggg gcccttcaaa 5460
 cttggttgga agaaattcaa ccagaatatac tacattagag tataatcatg tgtggtagga 5520
 agatggacta gttaatcaag atttggtgtc acttaaattt tttgtgattt tttccaagc 5580
 cagttttttt aaattctaaa tgtgttttga ggtatgggta cattaattgt aatgtaaact 5640
 attatacaac tgtttttgcg actttatagg caggtaaatt ttgctattac tattgaatac 5700
 aaatgacaat tcatttatga cactcaaac agcgttagta accatttagt gacaaaggat 5760
 taaaacatcc atctggatgt taattttgaa gatgtaaatt atatgttggt taaatttttc 5820
 caggcatctg aaaaccttat ctgctagaca atgtaagatt cacacagagt tatctgggat 5880
 tctgattttt taaatagtac atatcattaa accattttct ctaaatgtaa gaagagcaga 5940
 aaaaatctta taagattatc agatttttct aatgacacag aaatgtaaga aaaaaatccc 6000
 tttatattga aaaaagatgc agtcaaagtc ttttcagaca tgcccaaact ttgagaattt 6060
 cttcaaccat ctaatgctat aaagattttt gttcttctg ttcacaacca gttgtataac 6120
 agaaatacta gctactgttt tccttctgt gtgtgaagta atgaatcatt gattatgtga 6180
 cttgttatgt attcaattaa acactaaaga ataaaacatt cactccttta attattcaaa 6240
 aaaaaaaaaa aaaaa 6255

<210> 20
 <211> 2020
 <212> DNA
 <213> Homo sapiens

<400> 20
 gccgcgcgt ggacggttg gattagcggc cgcgggggccc ggtgggggtc gtggggcctc 60
 cccacccga gtacaggcga gcgagcggca tccgggcgga ccccgccctc ggggaccggg 120
 aaactgaggc tcgggcggcc tgagacgccg tcaaggatcat gtaggtggtg ggggcttgca 180
 tcttcgcctc ccgactccat ccagttcgtg tttgctgtga agacggtgtc cctggccagt 240
 gtccttcac ctgtccaaa gcatggggaa catcttcgcc aacctctca agggcctttt 300
 tggcaaaaaa gaaatgcga tcctcatggt gggcctggat gctgcaggga agaccacgat 360
 cctctacaag cttaagctgg gtgagatcgt gaccaccatt cccaccatag gcttcaacgt 420
 ggaaaccgtg gagtacaaga acatcagctt cactgtgtgg gacgtgggtg gccaggacaa 480
 gatccggccc ctgtggcgcc actacttcca gaacacacaa ggcctgatct tcgtgggtgga 540

cagcaatgac agagagcgtg tgaacgaggc ccgtgaggag ctcagtagga tgctggccga 600
 ggacgagctc cgggatgctg tcttcctggt gtccgccaac aagcaggacc tccccaacgc 660
 catgaatgcg gccgagatca cagacaagct ggggctgcac tcactacgcc acaggaactg 720
 gtacattcag gccacctgcg ccaccagcgg cgacgggctc tatgaaggac tggactggct 780
 gtccaatcag ctccggaacc agaagtgaac gcgaccccc tccctctcac tctcttgcc 840
 ctctgcttta ctctcatgtg gcaaactgac ggctcgtggt gtgagtcca gaagctgcct 900
 ccgtgggttg gtcaccgtgt gcacgcacc gtgctgtaaa tgtggcagac gcagcctgcg 960
 gccaggcttt ttatttaatg taaatagttt ttgtttccaa tgaggcagtt tctggtactc 1020
 ctatgcaata ttactcagct ttttttattg taaaaagaaa aatcaactca ctgttcagtg 1080
 ctgagagggg atgtaggccc atgggcacct ggctccagg agtcgctgtg ttgggagagc 1140
 cggccacgcc cttggcttta gagctgtggt gaaatccatt ttggtggtg gtttttaacc 1200
 caaactcagt gcatttttta aaatagttta gaatccaagt cgagaacact tgaacacaca 1260
 gaagggagac cccgcctagc atagatttgc agttacggcc tggatgccag tcgccagccc 1320
 agctgttccc ctccggaaca tgagggtgtg gtggcgcagc agactgcgat caattctgca 1380
 tggtcacagt agagatcccc gcaactcgtt tgtccttggg tcaccctgca ttccatagcc 1440
 atgtgcttgt ccctgtgctc ccacgggtcc caggggccag gctgggagcc cacagccacc 1500
 ccactatgcc gcaggccgcc ctaccacact tcaggcagcc tatgggacgc agggcccat 1560
 ctgtccctcg gtcgcctgtg ggccagagtg ggtccgtcgt ccccaacact cgtgctcgtc 1620
 cagacacttt ggagagatgt ctggggcctc accagcagga gcgcgtgcaa gccgggcagg 1680
 cggccacact agaccacag cccctcggga gcacccacc tctgtgtgtg atgtagcttt 1740
 ctctccctca gcctgcaagg gtccgatttg ccatcgaaaa agacaacctc tacttttttc 1800
 ttttgtattt tgataaacac tgaagctgga gctgttaaat ttatcttggg gaaacctcag 1860
 aactgggtcta tttggtgtcg tggaacctct tactgctttc aatacacgat tagtaatcaa 1920
 ctgttttgta tacttgtttt cagttttcat ttcgacaaa aagcactgta attatagcta 1980
 ttagaataaa atctcttaac tatttcaaaa aaaaaaaaaa 2020

<210> 21
 <211> 1998
 <212> DNA
 <213> Homo sapiens

<400> 21
 gccgcgcgt ggacgggttg gattagcggc cgcgggggcc ggtgggggtc gtggggcctc 60

ccccacccga	gtacaggcga	gcgagcggca	tccgggcgga	ccccgcctc	ggggaccggg	120
aaactgaggc	tccggcggcc	tgagacgccg	tcaaggtcat	gtaggtggtg	ggggcttgca	180
tcttcgcctc	ccgactccat	ccagtgtccc	tggccagtgt	ccttccacct	gtccacaagc	240
atggggaaca	tcttcgcca	cctcttcaag	ggcctttttg	gcaaaaaaga	aatgcgcatc	300
ctcatggtgg	gcctggatgc	tgcagggaag	accacgatcc	tctacaagct	taagctgggt	360
gagatcgtga	ccaccattcc	caccataggc	ttcaacgtgg	aaaccgtgga	gtacaagaac	420
atcagcttca	ctgtgtggga	cgtgggtggc	caggacaaga	tccggcccct	gtggcgccac	480
tacttccaga	acacacaagg	cctgatcttc	gtggtggaca	gcaatgacag	agagcgtgtg	540
aacgaggccc	gtgaggagct	catgaggatg	ctggccgagg	acgagctccg	ggatgctgtc	600
ctcctggtgt	tcgccaacaa	gcaggacctc	cccaacgcca	tgaatgcggc	cgagatcaca	660
gacaagctgg	ggctgcactc	actacgccac	aggaactggg	acattcaggc	cacctgcgcc	720
accagcggcg	acgggctcta	tgaaggactg	gactggctgt	ccaatcagct	ccggaaccag	780
aagtgaacgc	gacccccctc	cctctcactc	ctcttgccct	ctgctttact	ctcatgtggc	840
aaacgtgcgg	ctcgtggtgt	gagtgccaga	agctgcctcc	gtggtttggt	caccgtgtgc	900
atcgcaccgt	gctgtaaattg	tggcagacgc	agcctgcggc	caggcttttt	atttaattgta	960
aatagttttt	gtttccaattg	aggcagtttc	tgggtactcct	atgcaatatt	actcagcttt	1020
ttttattgta	aaaagaaaaa	tcaactcact	gttcagtgtc	gagaggggat	gtagggccat	1080
gggcacctgg	cctccaggag	tcgctgtgtt	gggagagccg	gccacgccct	tggctttaga	1140
gctgtgttga	aatccatttt	ggtggttggt	ttttaaccca	aactcagtgc	atTTTTTaaa	1200
atagttaaga	atccaagtgc	agaacacttg	aacacacaga	aggagagacc	cgcctagcat	1260
agatttgtag	ttacggcctg	gatgccagtc	gccagcccag	ctgttcccct	cgggaacatg	1320
aggtggtggt	ggcgcagcag	actgcgatca	attctgcatg	gtcacagtag	agatccccgc	1380
aactcgcttg	tccttgggtc	accctgcatt	ccatagccat	gtgcttgctc	ctgtgctccc	1440
acggttccca	ggggccaggc	tgggagccca	cagccacccc	actatgccgc	aggccgcctc	1500
acccaccttc	aggcagccta	tgggacgcag	ggccccatct	gtccctcggt	cgccgtgtgg	1560
ccagagtggg	tccgtcgtcc	ccaacactcg	tgctcgtca	gacactttgg	caggatgtct	1620
ggggcctcac	cagcaggagc	gcgtgcaagc	cgggcaggcg	gtccacctag	acccacagcc	1680
cctcgggagc	accccacctc	tgtgtgtgat	gtagctttct	ctccctcagc	ctgcaagggg	1740
ccgatttgcc	atcgaaaaag	acaacctcta	cttttttctt	ttgtattttg	ataaacactg	1800
aagctggagc	tgttaaattt	atcttgggga	aacctcagaa	ctggtctatt	tgggtgctgt	1860

gaacctctta ctgctttcaa tacacgatta gtaatcaact gttttgtata cttgttttca 1920
 gttttcattt cgacaaacaa gcactgtaat tatagctatt agaataaaat ctcttaacta 1980
 tttcaaaaaa aaaaaaaa 1998

<210> 22
 <211> 1986
 <212> DNA
 <213> Homo sapiens

<400> 22
 ccttaccg cggtgccccgc gcccgaggc gctgacgtgg ccgccgtcag agccgccatc 60
 ttgtgggagc aaaaccaacg cctggctcgg agcagcagcc tctgaggtga gggcgagggg 120
 cgcgggccgg tgtggggcgc agagacgttg gagccggcgg gggctgggga ctggcctcgg 180
 ggcgacttga ggtgtccctg gccagtgtcc ttccacctgt ccacaagcat ggggaacatc 240
 ttgcacaacc tcttcaaggg ccttttttggc aaaaaagaaa tgcgcatacct catggtgggc 300
 ctggatgctg caggggaagac cacgatcctc tacaagctta agctgggtga gatcgtgacc 360
 accattccca ccataggctt caacgtggaa accgtggagt acaagaacat cagcttcact 420
 gtgtgggacg tgggtggcca ggacaagatc cggccctgt ggcgccacta cttccagaac 480
 acacaaggcc tgatcttcgt ggtggacagc aatgacagag agcgtgtgaa cgaggcccg 540
 gaggagctca tgaggatgct ggccgaggac gagctccggg atgctgtcct cctggtgttc 600
 gccäacaagc aggacctccc caacgccatg aatgcggccg agatcacaga caagctgggg 660
 ctgcactcac tacgccacag gaactggtac attcaggcca cctgcgccac cagcggcgac 720
 gggctctatg aaggactgga ctggctgtcc aatcagctcc ggaaccagaa gtgaacgcga 780
 ccccccctccc tctcactcct cttgccctct gctttactct catgtggcaa acgtgcggct 840
 cgtggtgtga gtgccagaag ctgcctccgt ggtttggca ccgtgtgcat cgcaccgtgc 900
 tgtaaatgtg gcagacgcag cctgcggcca ggctttttat ttaatgtaaa tagtttttgt 960
 ttccaatgag gcagtttctg gtactcctat gcaatattac tcagcttttt ttattgtaaa 1020
 aagaaaaatc aactcactgt tcagtgtga gaggggatgt agggccatgg gcacctggcc 1080
 tccaggagtc gctgtgttgg gagagccggc cagcccttg gcttttagagc tgtgttgaaa 1140
 tccatttttg tggttggttt ttaacccaaa ctcagtgcac tttttaaaat agttaagaat 1200
 ccaagtcgag aacacttgaa cacacagaag ggagaccccg cctagcatag atttgcagtt 1260
 acggcctgga tgccagtcgc cagcccagct gtccccctcg ggaacatgag gtggtggtgg 1320
 cgagcagac tgcgatcaat tctgcatggt cacagtagag atccccgcaa ctgcgttgtc 1380

cttgggtcac cctgcattcc atagccatgt gcttgtccct gtgtcccccac ggttcccagg 1440
 ggccaggctg ggagcccaca gccaccccac tatgccgcag gccgccctac ccaccttcag 1500
 gcagcctatg ggacgcaggg ccccatctgt ccctcggtcg ccgtgtggcc agagtgggtc 1560
 cgtcgtcccc aacactcgtg ctgctcaga cactttggca ggatgtctgg ggcccacca 1620
 gcaggagcgc gtgcaagccg ggcaggcggg ccacctagac ccacagcccc tcgggagcac 1680
 cccacctctg tgtgtgatgt agctttctct ccctcagcct gcaagggtcc gatttgccat 1740
 cgaaaaagac aacctctact tttttctttt gtattttgat aaacactgaa gctggagctg 1800
 ttaaatattat cttggggaaa cctcagaact ggtctatttg gtgtcgtgga acctcttact 1860
 gctttcaata cacgattagt aatcaactgt tttgtatact tgttttcagt tttcatttcg 1920
 acaaacaagc actgtaatta tagctattag aataaaatct cttaactatt tcaaaaaaaaa 1980
 aaaaaa 1986

<210> 23
 <211> 1901
 <212> DNA
 <213> Homo sapiens

<400> 23
 ccttaccocgg cgtgccccgc gcccgaggc gctgacgtgg ccgccgtcag agccgccatc 60
 ttgtgggagc aaaaccaacg cctggctcgg agcagcagcc tctgaggtgt ccctggccag 120
 tgctcttcca cctgtccaca agcatgggga acatcttcgc caacctcttc aagggccttt 180
 ttggcaaaaa agaaatgcgc atcctcatgg tgggcctgga tgctgcaggg aagaccacga 240
 tcctctacaa gcttaagctg ggtgagatcg tgaccaccat tcccaccata ggcttcaacg 300
 tggaaccgt ggagtacaag aacatcagct tactgtgtg ggacgtgggt ggccaggaca 360
 agatccggcc cctgtggcgc cactacttcc agaacacaca aggcctgatc ttcgtggtgg 420
 acagcaatga cagagagcgt gtgaacgagg cccgtgagga gctcatgagg atgctggccg 480
 aggacgagct ccgggatgct gtctccttg tggtcgccaa caagcaggac ctccccaacg 540
 ccatgaatgc ggccgagatc acagacaagc tggggctgca ctactacgc cacaggaact 600
 ggtacattca ggccacctgc gccaccagcg gcgacgggct ctatgaagga ctggactggc 660
 tgtccaatca gctccggaac cagaagtga cgcgaccccc ctccctctca ctctcttgc 720
 cctctgcttt actctcatgt ggcaaactg cggtcgtgg tgtgagtgcc agaagctgcc 780
 tccgtggttt ggtcacctg tgcacgcac cgtgctgtaa atgtggcaga cgcagcctgc 840
 ggccaggctt tttatttaat gtaaatagtt tttgtttcca atgaggcagt ttctggtact 900

cctatgcaat attactcagc tttttttatt gtaaaaagaa aaatcaactc actgttcagt 960
 gctgagaggg gatgtaggcc catgggcacc tggcctccag gagtcgctgt gttgggagag 1020
 ccggccacgc ccttggtctt agagctgtgt tgaaatccat tttggtggtt ggtttttaac 1080
 ccaaactcag tgcatttttt aaaatagtta agaatccaag tcgagaacac ttgaacacac 1140
 agaagggaga ccccgccctag catagatttg cagttacggc ctggatgcca gtcgccagcc 1200
 cagctgttcc cctcgggaac atgaggtggt ggtggcgcag cagactgcga tcaattctgc 1260
 atggtcacag tagagatccc cgcaactcgc ttgtccttgg gtcaccctgc attccatagc 1320
 catgtgcttg tccctgtgct cccacggttc ccaggggcca ggctgggagc ccacagccac 1380
 cccactatgc cgcaggccgc cctaccacac ttcaggcagc ctatgggacg cagggcccca 1440
 tctgtccctc ggtgcgcgtg tggccagagt gggtcgcgtg tccccaacac tcgtgctcgc 1500
 tcagacactt tggcaggatg tctggggcct caccagcagg agcgcgtgca agccgggcag 1560
 gcggtccacc tagaccacac gcccctcggg agcaccaccac ctctgtgtgt gatgtagctt 1620
 tctctccctc agcctgcaag ggtccgattt gccatcgaaa aagacaacct ctactttttt 1680
 cttttgtatt ttgataaaca ctgaagctgg agctgttaaa tttatcttgg ggaaacctca 1740
 gaactggtct atttggtgtc gtggaacctc ttactgcttt caatacacga ttagtaatca 1800
 actgttttgt atacttggtt tcagttttca tttcgacaaa caagcactgt aattatagct 1860
 attagaataa aatctcttaa ctatttcaaa aaaaaaaaaa a 1901

<210> 24

<211> 3509

<212> DNA

<213> Homo sapiens

<400> 24

ggcgccttga aacgttcggc gagccgactg cggctgcgcg gggatttcga atcggcggcg 60
 gcttctagtt tgcggttcag gtttggccgc tgccggccag cgtcctctgg ccatggacac 120
 cccggaaaat gtccttcaga tgcttgaagc ccacatgcag agctacaagg gcaatgaccc 180
 tcttggtgaa tgggaaagat acatacagtg ggtagaagag aattttcctg agaataaaga 240
 atacttgata actttactag aacattttaat gaaggaattt ttagataaga agaaataacca 300
 caatgaccca agattcatca gttattgttt aaaatttgct gagtacaaca gtgacctcca 360
 tcaatttttt gagtttctgt acaaccatgg gattggaacc ctgtcatccc ctctgtacat 420
 tgcttgggcg gggcatctgg aagcccaagg agagctgcag catgccagtg ctgtccttca 480
 gagaggaatt caaaaccagg ctgaaccag agagttcctg caacaacaat acaggttatt 540

tcagacacgc ctcactgaaa cccatttgcc agctcaagct agaacctcag aacctctgca	600
taatgttcag gttttaaatc aaatgataac atcaaaatca aatccaggaa ataacatggc	660
ctgcatttct aagaatcagg gttcagagct ttctggagtg atatcttcag cttgtgataa	720
agagtcaa atggaacgaa gagtgatcac gatttctaaa tcagaatatt ctgtgcactc	780
atctttggca tccaaagttg atgttgagca ggttggtatg tattgcaagg agaagcttat	840
tcgtggggaa tcagaatttt cctttgaaga attgagagcc cagaaatata atcaacggag	900
aaagcatgag caatgggtaa atgaagacag acattatatg aaaaggaaa aagcaa atgc	960
ttttgaagaa cagctattaa aacagaaaat ggatgaactt cataagaagt tgcacaggt	1020
ggtggagaca tcccatgagg atctgcccgc ttcccaggaa aggtccgagg ttaatccagc	1080
acgtatgggg ccaagtgtag gctcccagca ggaactgaga gcgcatgtc ttccagtaac	1140
ctatcagcag acaccagtga acatggaaaa gaaccaaga gaggcacctc ctgttggttc	1200
tcctttggca aatgctatct ctgcagcttt ggtgtcccca gccaccagcc agagcattgc	1260
tcctcctgtt cctttgaaag cccagacagt aacagactcc atgtttgcag tggccagcaa	1320
agatgctgga tgtgtgaata agagtactca tgaattcaag ccacagagtg gagcagagat	1380
caaagaaggg tgtgaaacac ataagggtgc caacacaagt tcttttcaca caactccaaa	1440
cacatcactg ggaatggttc aggcaacgcc atccaaagtg cagccatcac ccaccgtgca	1500
cacaaaagaa gcattagggt tcatcatgaa tatgtttcag gctcctacac ttctgatata	1560
ttctgatgac aaagatgaat ggcaatctct agatcaaaat gaagatgcat ttgaagccca	1620
gtttcaaaaa aatgtaaggc catctggggc ttggggagtc aataagatca tctcttcttt	1680
gtcatctgct tttcatgtgt ttgaagatgg aaacaaagaa aattatggat taccacagcc	1740
taaaaataaa cccacaggag ccaggacctt tggagaacgc tctgtcagca gacttccttc	1800
aaaaccaaa gaggaagtgc ctcatgctga agagtttttg gatgactcaa ctgtatgggg	1860
tattcgctgc aacaaaacc ttggcaccag tcctaagagc ccaggagact tcacatctgc	1920
tgcacaactt gcgtctacac cattccacaa gcttccagtg gagtcagtgc acattttaga	1980
agataaagaa aatgtggtag caaacagtg taccaggcg actttggatt cttgtgagga	2040
aaacatggtg gtgccttcaa gggatggaaa attcagtcga attcaagaga aaagcccaaa	2100
acaggccttg tcgtctcaca tgtattcagc atccttactt cgtctgagcc agcctgctgc	2160
aggtggggta cttacctgtg aggcagagtt gggcggttgag gcttgcagac tcacagacac	2220
tgacgtgcc attgcagaag atccaccaga tgctattgct gggctccaag cagaatggat	2280

gcagatgagt tcacttggga ctgttgatgc tccaaacttc attgttggga acccatggga 2340
 tgataagctg attttcaaac ttttatctgg gctttctaaa ccagtgaagt cctatccaaa 2400
 tacttttgaa tggcaatgta aacttccagc catcaagccc aagactgaat ttcaattggg 2460
 ttctaagctg gtctatgtcc atcaccttct tggagaagga gcctttgccc aggtgtacga 2520
 agctaccag ggagatctga atgatgctaa aaataaacag aaatttgttt taaagggtcca 2580
 aaagcctgcc aaccctggg aattctacat tgggaccag ttgatggaaa gactaaagcc 2640
 atctatgcag cacatgttta tgaagttcta ttctgccac ttattccaga atggcagtgt 2700
 attagtagga gagctctaca gctatggaac attattaaat gccattaacc tctataaaaa 2760
 taccctgaa aaagtgatgc ctcaaggctt tgtcatctct ttgctatga gaatgcttta 2820
 catgattgag caagtgcag actgtgaaat cattcatgga gacattaac cagacaattt 2880
 cataactgga aacggatttt tggacagga tgatgaagat gatttatctg ctggcttggc 2940
 actgattgac ctgggtcaga gtatagatat gaaacttttt ccaaaggaa ctatattcac 3000
 agcaaagtgt gaaacatctg gttttcagt tgttgagatg ctcagcaaca aaccatggaa 3060
 ctaccagatc gattactttg gggttgctgc aacagtatat tgcagtctct ttggcactta 3120
 catgaaagtg aaaaatgaag gaggagagt taagcctgaa ggtcttttta gaaggcttcc 3180
 tcatttggat atgtggaatg aattttttca tgttatgttg aatattccag attgtcatca 3240
 tcttccatct ttggatttgt taaggcaaaa gctgaagaaa gtatttcaac aacactatac 3300
 taacaagatt agggccctac gtaataggct aattgtactg ctcttagaat gtaagcgttc 3360
 acgaaaataa aatttggata tagacagtcc ttaaaaatca cactgtaaat atgaatctgc 3420
 tcactttaaa cctgtttttt tttcatttat tgtttatgta aatgtttgtt aaaaataaat 3480
 cccatggaat atttccatgt aaaaaaaaaa 3509

<210> 25

<211> 2501

<212> DNA

<213> Homo sapiens

<400> 25

cgaaaagatt cttaggaacg ccgtaccagc cgcgtctctc aggacagcag gccctgtcc 60
 ttctgtcggg cgccgctcag ccgtgcctc cgccctcag gttctttttc taattccaaa 120
 taaacttgca agaggactat gaaagattat gatgaacttc tcaaataatta tgaattacat 180
 gaaactattg ggacaggtgg ctttgcaaag gtcaaacttg cctgccatat cttactgga 240
 gagatggtag ctataaaaat catggataaa aacacactag ggagtgattt gcccggatc 300

aaaacggaga ttgaggcctt gaagaacctg agacatcagc atatatgtca actctaccat	360
gtgctagaga cagccaacaa aatattcatg gttcttgagt actgccctgg aggagagctg	420
tttgactata taatttccca ggatcgctg tcagaagagg agacccgggt tgtcttccgt	480
cagatagtat ctgctgttgc ttatgtgcac agccagggct atgctcacag ggacctcaag	540
ccagaaaatt tgctgtttga tgaatatcat aaattaaagc tgattgactt tggctctgt	600
gcaaaaccca agggtaacaa ggattaccat ctacagacat gctgtgggag tctggcttat	660
gcagcacctg agttaatata aggcaaatca tatcttggat cagaggcaga tgtttggagc	720
atgggcatac tgttatatgt tcttatgtgt ggatttctac catttgatga tgataatgta	780
atggctttat acaagaagat tatgagagga aaatatgatg ttcccaagtg gctctctccc	840
agtagcattc tgcttcttca acaaatgctg cagggtggacc caaagaaacg gatttctatg	900
aaaaatctat tgaaccatcc ctggatcatg caagattaca actatcctgt tgagtggcaa	960
agcaagaatc cttttattca cctcgatgat gattgcgtaa cagaactttc tgtacatcac	1020
agaaacaaca ggcaacaat ggaggattta atttactgt ggcagtatga tcacctcacg	1080
gctacctatc ttctgcttct agccaagaag gctcggggaa aaccagttcg tttaaggctt	1140
tcttctttct cctgtggaca agccagtgt accccattca cagacatcaa gtcaaataat	1200
tggagtctgg aagatgtgac cgcaagtgat aaaaattatg tggcgggatt aatagactat	1260
gattggtgtg aagatgattt atcaacaggt gctgctactc cccgaacatc acagtttacc	1320
aagtactgga cagaatcaaa tggggtgga tctaaatcat taactccagc cttatgcaga	1380
acacctgcaa ataaattaaa gaacaaagaa aatgtatata ctctaagtc tgctgtaaag	1440
aatgaagagt actttatgtt tcttgagcca aagactccag ttaataagaa ccagcataag	1500
agagaaatac tctactagcc aaatcgttac actacacct caaaagctag aaaccagtgc	1560
ctgaaagaaa ctccaattaa aataccagta aattcaacag gaacagacaa gttaatgaca	1620
gggtgtcatta gccctgagag gcggtgccgc tcagtggaat tggatctcaa ccaagcacat	1680
atggaggaga ctccaaaaag aaaggagacc aaagtgtttg ggagccttga aagggggtg	1740
gataaggtta tctctgtgct caccaggagc aaaaggaagg gtcttgccag agacggggcc	1800
agaagactaa agcttcacta taatgtgact acaactagat tagtgaatcc agatcaactg	1860
ttgaatgaaa taatgtctat tcttccaaag aagcatgttg actttgtaca aaagggttat	1920
acactgaagt gtcaaacaca gtcagatttt gggaaagtga caatgcaatt tgaattagaa	1980
gtgtgccagc ttcaaaaacc cgatgtggtg ggtatcagga ggcagcggct taagggcgat	2040
gcctgggttt acaaaagatt agtggaagac atcctatcta gctgcaaggt ataattgatg	2100

gattcttcca tcttgccgga tgagtgtggg tgtgatacag cctacataaa gactgttatg 2160
 atcgctttga ttttaaagtt cattggaact accaacttgt ttctaaagag ctatcttaag 2220
 accaatatct ctttggtttt aaacaaaaga tattattttg tgtatgaatc taaatcaagc 2280
 ccatctgtca ttatgttact gtctttttta atcatgtggt tttgtatatt aataattggt 2340
 gactttctta gattcacttc catatgtgaa tgtaagctct taactatgtc tctttgtaat 2400
 gtgtaatttc tttctgaaat aaaaccattt gtgaatataa aaaaaaaaaa aaaaaaaaaa 2460
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2501

<210> 26
 <211> 890
 <212> DNA
 <213> Homo sapiens

<400> 26
 atcttcaccc aggcctggccc ctttggtgaa actacaactc ccaggggtct gtgcgcgaga 60
 aggcaggcgg gtttttctac cggaagtccg ctctagctct gggccctaca actgcaccct 120
 gagccggagc tgcccagtcg ccgcgggacc ggggcccgtg gggctctggac gggggtcgcc 180
 atgatccgct ttatcctcat ccagaaccgg gcaggcaaga cgcgcctggc caagtggtag 240
 atgcagtttg atgatgatga gaaacagaag ctgatcgagg aggtgcatgc cgtggtcacc 300
 gtccgagacg ccaaacacac caactttgtg gagttccgga actttaagat catttaccgc 360
 cgctatgctg gcctctactt ctgcatctgt gtggatgtca atgacaacaa cctggcttac 420
 ctggaggcca ttcacaactt cgtggaggtc ttaaacgaat atttccacaa tgtctgtgaa 480
 ctggacctgg tgttcaactt ctacaagggt tacacggtcg tggacgagat gttcctggct 540
 ggcgaaatcc gagagaccag ccagacgaag gtgctgaaac agctgctgat gctacagtcc 600
 ctggagttag ggcaggcgag cccacccccg gcccggccc ctctggact cgctgctcg 660
 cttccccctt ccaggcccggt ggccaacca gcagtccttc cctcagctgc ctaggaggaa 720
 gggacctcagc tgggtctggg ccacaaggga ggagactgca cccactgcc tctgggccct 780
 ggctgtgggc agaggccacc gtgtgtgtcc cgagtaaccg tgccgttgtc gtgtgatgcc 840
 ataagcgtct gtgcgtggag tccccataa acctgtggtc ctgcctggcc 890

<210> 27
 <211> 776
 <212> DNA
 <213> Homo sapiens

<400> 27

atcttcaccc aggctggccc ctttggtgaa actacaactc ccaggggtct gtgcgcgaga 60
 aggcaggcgg gtttttctac cggaagtccg ctctagctct gggccctaca actgcaccct 120
 gagccggagc tgcccagtcg ccgcgggacc ggggcccgtg gggctctggac gggggtcgcc 180
 atgatccgct ttatcctcat ccagaaccgg gcaggcaaga cgcgcctggc caagtggtag 240
 atgcagtttg atgatgatga gaaacagaag ctgatcgagg aggtgcatgc cgtggtcacc 300
 gtccgagacg ccaaacacac caactttgtg gaggtcttaa acgaatattt ccacaatgtc 360
 tgtgaactgg acctggtgtt caacttctac aaggtttaca cggtcgtgga cgagatgttc 420
 ctggctggcg aaatccgaga gaccagccag acgaagggtc tgaaacagct gctgatgcta 480
 cagtccctgg agtgagggca ggcgagcccc accccggccc cggccctcc tggactcgcc 540
 tgctcgcttc ccttcccag gcccgtagcc aaccagcag tccttccctc agctgcctag 600
 gaggaagggg cccagctggg tctgggccac aaggaggagg actgcacccc actgcctctg 660
 ggccctggct gtgggcagag gccaccgtgt gtgtcccag taaccgtgcc gttgtcgtgt 720
 gatgccataa gcgtctgtgc gtggagtccc caataaacct gtggctctgc ctggcc 776

<210> 28
 <211> 2554
 <212> DNA
 <213> Homo sapiens

<400> 28
 ggattggctg ttcggagcgg cgaggggctt ggcgggagct tccagtcgct cgagagcgga 60
 gagcggcacc atggccccgc gggggcggcg gcggccgagg cctcacaggt ctgagggcgc 120
 aagacgttca aagaacactt tagaaagaac acattccatg aaagataaag ctgggtcaaaa 180
 gtgcaagcct attgacgtgt tcgactttcc tgataattct gatgtctcaa gcattggcag 240
 gctgggtgaa aatgagaaaag atgaagaaac ttatgagacc tttgatcctc ctttacatag 300
 cacagctata tatgctgatg aagaagaatt ctccaaacat tgtggactgt ctctctcttc 360
 aactcctcca ggaaaagaag caaaaagaag ttcagacact tctggaaatg aagcaagtga 420
 aatcgaatct gtaaaaatta gtgcaaaaaa gccaggaaga aagctcaggc ccattagtga 480
 tgactctgaa agcattgaag aaagtgatac aaggagaaaa gttaaatcag cagagaaaat 540
 aagtacacaa cgtcatgagg ttattcgaac cacagcgtct tcagaacttt cagagaaacc 600
 agctgagtct gtcacttcta aaaagacagg accccttagt gccagccct ctgttgaaaa 660
 agagaacttg gcaatagaaa gtcaatcgaa aactcagaaa aaagggaaga tatctcatga 720
 caaaaggaag aaatcaagaa gtaaagccat aggctcagat acttctgaca ttgtgcacat 780

ttggtgtcca gaaggaatga aaaccagtga catcaaggag ttgaatattg ttttgcttga	840
at ttgagaaa acccacctag agcatcaaca aagaatagaa tctaaagttt gtaaggcagc	900
catcgccaca ttttatgtta atgttaaaga acaattcatc aaaatgctta aagaaagcca	960
gatgttgaca aatctgaaaa ggaagaatgc taagatgatt tcagatatcg aaaagaaaag	1020
gcagcgtatg attgaagtcc aggatgaact gcttcgggtta gagccacagc tgaacaact	1080
acaaacaaaa tatgatgaac ttaaagagag aaagtcttcc cttaggaatg cagcatattt	1140
cttatctaata ttaaaacagc tttatcaaga ttattcagat gttcaagctc aagaaccaa	1200
cgtaaaggaa acgtatgatt catccagcct tccagctctg ttatttaaag caagaacact	1260
tctgggagcc gaaagccatc tgcgaaatat caaccatcag ttagagaagc tccttgacca	1320
gggatgagaa gagcagtcta ctaaaatgtg cctataggaa gactagtctc atgctgttac	1380
cttctgaaac tgtaccttta taaatcaatt gttttgcaaa gaagttatgg cctacttaga	1440
atctaaaatt tgttattcaa attaaatggc tgtgaacaat gttaaatagc atcagtttgt	1500
ccaatagttt taaaggccat aatcatcttt tctgggttaat atcttgagta attttaaat	1560
gttgacacct taatcgggtcc caggatgag ctataataaa cttgtaaaat taagttgatg	1620
tgaacataat tttgattaat taataaggcg atttctcctg aatttacacc aaagctaatt	1680
tttaatgaaa ttggtttaca gaagtaaaaa acaaaaattg gaaagcaaag taataaaact	1740
tagtttatat aaacagggtg aatgatatat ttatcaaac tcacagacat caggcaaatt	1800
atagcctggt gacaaaagtg ttcatagtga attagttact cttgtaatac ttctataatt	1860
agttcatcag gaatttcac cacttcactg ttataactga gaagactgtt ctctgcagct	1920
tcagctaatt cagcatcttc agtagcttct aaaaaataag catcatcaat gccattatcc	1980
cagacagcat cagcagatgc acctgttgac agcctgctag gtgatgggtt atgaggatcc	2040
tgggtttcat tgctcctagt ttcactctgct tcatctgttg taaactcttc ttcctttatt	2100
tcagtgggtga agggatagag agtgggatag gaaaatattt actcaggata tgtgatttaa	2160
ccttatactc tatgttgaag taaggtatta agtgacagat actaaagtga atatgcagga	2220
ggaatgctgt ctccgatatc tcaccgtggg aatgagtgca ctgattcaaa cgttgctgca	2280
ctgaagctca gacacacttg aaactccaaa tttgaaatta cctacagttc tgtgcacata	2340
cttttcaata ctccccgacg gaagagcaag ggtggattta attttttaac aagtggacag	2400
tccagctgaa gacaaatcag aagataaatt tgctatcttg acaatggact tagtaccat	2460
gctttaaatt ttaaagtatt tagcaaatcg taaacatgga ttgaaaaaag attaaaaaca	2520
gttgccaaaa tatgactgga ttgtatatta aaaa	2554

<210> 29
 <211> 1431
 <212> DNA
 <213> Homo sapiens

<400> 29
 ccgtgaagtg ggcggagcga gcgatttgaa cgcgagcggc gcggacttct gccaaagcacc 60
 ggctcatgtg aggctcgcgg cacagcgttc tctgggctcc ccagaagcca gcctttcgct 120
 cccggacccg gcagcccgag caggagccgt gggaccgggc gccagcacc tctgcggcgt 180
 gtcattgggccc cgcgcgcgcg gagccgaaag cccgaggccc cgaggaggcg cagcccgagc 240
 ccgaccccgga cccccggccc ctcccggcgg ggccccctct taggcgcttc ctcccatcaa 300
 cacagtccgc ggagacaagg ttggctaaag gagatccgaa agcttcagaa gagcacacac 360
 ctcttgataa ggaagctgcc cttcagccgc ctggcaagag aaatatgtgt taaattcact 420
 cgtggtgtgg acttcaattg gcaagcccag gccctattgg ccctacaaga ggcagcagaa 480
 gcatttctag ttcattctct tgaggacgcc tatctcctca ccttacatgc aggccgagtt 540
 actctcttcc caaaggatgt gcaactggcc cggaggatcc ggggccttga ggagggactc 600
 ggctgagctc ctgcacccag tgtttctgtc agtctttcct gctcagccag gggggatgat 660
 accggggact ctccagagcc atgactagat ccaatggatt ctgcgatgct gtctggactt 720
 tgctgtctct gaacagtatg tgtgtgttgc tttaaatatt tttctttttt ttgagaagga 780
 gaagactgca tgactttcct ctgtaacaga ggtaatatat gagacaatca acaccgttcc 840
 aaaggcctga aaataatttt cagataaaga gactccaagg ttgacttttag tttgtgagtt 900
 actcatgtga ctatttgagg attttgaaaa catcagattt gctgtggtat gggagaaaaag 960
 gctatgtact tattatttta gctctttctg taatatattac attttttacc atatgtacat 1020
 ttgtactttt attttacaca taagggaata aataagacca ctttgagcag ttgcctggaa 1080
 ggctgggcat ttccatcata tagacctctg cccttcagag tagcctcacc attagtggca 1140
 gcatcatgta actgagtgga ctgtgcttgt caacggatgt gtagcttttc agaaacttaa 1200
 ttggggatga atagaaaacc tgtaagcttt gatgttctgg ttacttctag taaattcctg 1260
 tcaaaatcaa ttcagaaatt ctaacttgga gaatttaaca ttttactctt gtaaatcata 1320
 gaagatgtat cataacagtt cagaatttta aagtacattt tcgatgcttt tatgggtatt 1380
 tttgtagttt cttttagtag agataataaa aatcaaaata tttaatgaaa a 1431

<210> 30
 <211> 1352

<212> DNA

<213> Homo sapiens

<400> 30

```

cgtgaagtgg gcggagcgag cgatttgaac gcgagcggcg cggacttctg ccaagcaccg      60
gctcatgtga ggctcgcggc acagcgttct ctgggctccc cagaagccag cctttcgcctc      120
ccggacccgg cagcccgcgc aggagccgtg ggaccgggcg ccagcaccct ctgcggcgctg      180
tcatgggccc gcgccgccgg agccgaaagc ccgaggcccc gaggaggcgc agcccgcagcc      240
cgaccccgac ccccgggccc tcccggcggg gccctcctt aggcgcttcc tcccatcaac      300
acagtcggcg gagacaaggt tggctaaagg agatccgaaa gcttcagaag agcacacacc      360
tcttgataag gaagctgccc ttcagccgcc tggcagcaga agcatttcta gttcatctct      420
ttgaggacgc ctatctcttc accttacatg caggccgagt tactctcttc ccaaaggatg      480
tgcaactggc ccggaggatc cggggccttg aggagggact cggctgagct cctgcaccca      540
gtgtttctgt cagtctttcc tgctcagcca ggggggatga taccggggac tctccagagc      600
catgactaga tocaatggat tctgcgatgc tgtctggact ttgctgtctc tgaacagtat      660
gtgtgtgttg ctttaaatat ttttcttttt tttgagaagg agaagactgc atgactttcc      720
tctgtaacag aggtaatata tgagacaatc aacaccgttc caaaggcctg aaaataattt      780
tcagataaag agactccaag gttgacttta gtttgtgagt tactcatgtg actatttgag      840
gattttgaaa acatcagatt tgctgtggta tgggagaaaa ggctatgtac ttattatttt      900
agctctttct gtaatatatta catttttttac catatgtaca tttgtacttt tattttacac      960
ataagggaaa aaataagacc actttgagca gttgcctgga aggctgggca tttccatcat      1020
atagacctct gcccttcaga gtagcctcac cattagtggc agcatcatgt aactgagtgg      1080
actgtgcttg tcaacggatg tgtagctttt cagaaactta attggggatg aatagaaaac      1140
ctgtaagctt tgatgttctg gttacttcta gtaaattcct gtcaaaatca attcagaaat      1200
tctaacttgg agaatttaac attttactct tgtaaatcat agaagatgta tcataacagt      1260
tcagaatttt aaagtacatt ttcgatgctt ttatgggtat tttttagtct tctttgtaga      1320
gagataataa aaatcaaat atttaatgaa aa      1352

```

<210> 31

<211> 916

<212> DNA

<213> Homo sapiens

<400> 31

```

ggacgcagag aagccagaga ctttcgcttc cggctgccgc aggcgcttcg ctggtgcagg      60

```

```

taagctccgc acactctcgg ccggtcccga gtccgactcc ctcaagggtg acgcgagctc 120
tgcccttttaa ccggaacgt ctccctgctc accccacccc cgcgcagacg cagtgtgag 180
cacacagcta ccggacaaag agtgacgccc ggagctggag ttatggcggc tacggagccg 240
atcttggcgg cactgggag tcccgcggcg gtgccaccgg agaaactgga aggagccggt 300
tcgagctcag cccctgagcg taactgtgtg ggctcctcgc tgccagaggc ctcaccgcct 360
gcccctgagc cttccagtcc caacgcgcg gtccctgaag ccatccctac gcccgcagct 420
gcggcctccg cggccctgga gctgcctctc gggcccgcac ccgtgagcgt agcgctcag 480
gccgaagctg aagcgcgctc cacaccaggc ccgcgcggct ctagactcgg tcccgcagcg 540
ttccgccagc gtttcggca gttccgtac caggatgcgg cgggtccccg ggaggctttc 600
cggcagctgc gggagctgtc ccgccagtgg ctgcggcctg acatccgcac caaggagcag 660
atcgtggaga tgctggtgca agagcagctg ctgccatcc tgcccaggc ggctcgggcc 720
cggcgatcc gccgcgcac ggatgtgcgc atcactggct gagcgggtga gctgcgggcg 780
gccagggccg ggcgctctgt gcggactggg gccatgatcg gggccggggg cctgagcctg 840
ggaccccacc ccgtgttaat gaaaaatgag ttttggcagc gccaaaaaaa aaaaaaaaaa 900
aaaaaaaaaa aaaaaa 916

```

```

<210> 32
<211> 840
<212> DNA
<213> Homo sapiens

```

```

<400> 32
ggacgcagag aagccagaga ctttcgcttc cggctgccgc aggcgcttcg ctggtgcaga 60
cgcagtgtctg agcacacagc taccggacaa agagtgcgc ccggagctgg agttatggcg 120
gctacggagc cgatcttggc ggccactggg agtcccgcgg cggtgccacc ggagaaactg 180
gaaggagccg gttcgagctc agcccctgag cgtaactgtg tgggctctc gctgccagag 240
gcctcaccgc ctgcccctga gccttcagc cccaacgccg cggtcctga agccatccct 300
acgccccgag ctgcggcctc cgcggccctg gagctgcctc tcgggcccgc acccgtgagc 360
gtagcgcctc aggccgaagc tgaagcgcgc tccacaccag gcccgcggc ctctagactc 420
gggtcccgaga cgttcgcga gcgtttccgg cagttccgct accaggatgc ggcgggtccc 480
cgggaggctt tccggcagct gcgggagctg tcccgccagt ggctgcggcc tgacatccgc 540
accaaggagc agatcgtgga gatgctggtg caagagcagc tgctcgccat cctgcccag 600
gcggctcggg cccggcgat ccgcgcgc acggatgtgc gcactactgg ctgagcggtg 660

```

gagctgcggg cggccagggc cgggcgctct gtgcggactg gggccatgat cgggcccggg 720
 ggcttgagcc tgggacccca ccccggtgta atgaaaaatg agttttggca gcgccaaaaa 780
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 840

<210> 33
 <211> 3995
 <212> DNA
 <213> Homo sapiens

<400> 33
 ccccgccccg ctccctctccg gccgcgcagc cgctgccgcc caccgcacc cgcggtcatg 60
 ctccggggccg cgctgccgcg gctcctgctg cggttgctgg gcctcgccgc tgctgccgtc 120
 gcggactgtc cttcatctac ttggattcag ttccaagaca gttgttacat ttttctccaa 180
 gaagccatca aagtagaaag catagaggat gtcagaaatc agtgtactga ccatggagcg 240
 gacatgataa gcatacataa tgaagaagaa aatgctttta tactggatac tttgaaaaag 300
 caatggaaag gccagatga taccctacta ggcattgttt atgacacaga tgatgcgagt 360
 ttcaagtggg ttgataattc aaatatgaca ttgataagt ggacagacca agatgatgat 420
 gaggatttag ttgacacctg tgcttttctg cacatcaaga cagggtgaatg gaaaaaagga 480
 aattgtgaag tttcttctgt ggaaggaaca ctatgcaaaa cagctatccc atacaaaagg 540
 aaatatttat cagataacca cattttaata tcagcattgg tgattgctag cacggtaatt 600
 ttgacagttt tgggagcaat catttggttc ctgtacaaaa aacattctga ttctcgtttc 660
 accacagttt tttcaaccgc accccaatca ccttataatg aagactgtgt tttggtagtt 720
 ggagaagaaa atgaatatcc tgttcaattt gactaagttt ttggtaatct tgcactaaga 780
 catcaacaaa atgccctggc agagataact tgggaaagat tttaataata aacttgacat 840
 tggatattag agctttaatg gtattcctta ttocagtaac atttttatgt actcatctgc 900
 tgtgaaaagt ctttaggttc attaaaaaaa cagggttttag aaatgatctt agatctaata 960
 tagtgatttt aagcatcccg tcaaaggcag aatctgtcac ttgaatgaag gaaagcttaa 1020
 agcccaagca gataaaaata aaagcccagc ctatttgtct tgccctgctgt atcttcctta 1080
 tttagttgac ccactttagt ttatatgttt attagtaaac atgaaatggg gaataagtga 1140
 ttttaagtac atcccataca tttaaatatc ttgataatt gttatttttt tggcagataa 1200
 ttccctctaga atgtgtatct ttttatgatt tagatgaaga aaattttaca acttttaaca 1260
 cccacacca attttagttt cattactttt acacacacca ttttatcaca aatgactcaa 1320
 gttttaatga atgtttataa attatttgaa acaaaatatg atcgctgtgt ccaggatggc 1380

atagagaaag	ctggcaatta	ggttaacact	tacatattat	agtgeccctt	taaggatttc	1440
tctcttgcca	ccataccttt	tgtactttcc	cctatacaag	atgtatctca	ttctcctcaa	1500
gcatttataa	atttttcctt	caatgacatg	aaaactgtgc	aagcaaaaac	cgaagaaaaa	1560
cacttaagta	caactgtagt	gacagtgatc	aaagttttca	gtgcatttat	tgtacatttt	1620
aagaaaaagg	tgaaaatcat	ttggggagta	aaaaaatgaa	aaagctgaaa	cgagtaattt	1680
tcctcaccat	caataaacca	aaaacaggaa	agataaagaa	tgtataaatt	tcacgtaaat	1740
tagtcacgta	tcacttatca	atggggatac	gttctaagaa	atgcatagtt	agggaaatctt	1800
gtgtgaaaat	cagcttgtat	ttacacaaac	ccagatggta	gagcctattt	tgtcccaaac	1860
ctacacagca	tgttactgtg	ctgaatactg	cagacaattg	taacacaata	tttgtgtatc	1920
taaatataga	aaaggtacag	taaaaatatg	gtctactaag	gaaacactgt	tctatatgtg	1980
gtccattact	gactgaagta	tactgtctag	aagtctgagg	ctcaaagaaa	agtaatccct	2040
cttctgaatc	cacaccccat	caattatctt	actttcttct	ggggagatag	atagatatac	2100
tatctcacta	gcttgactaa	tggcaacaaa	gttcagctt	gtgtagtctc	tttttattga	2160
ccacatgaat	cgaaaacact	catcacaatt	aatggcacta	tcattaatga	gacatgagta	2220
actaaaaagt	gatagaaaac	tattaacagt	gcggctacat	ggtactgaaa	atgcaggcat	2280
tacaccagct	gttacacaag	cacaagcatg	ctctgtaaga	gctttacatt	tctgagattt	2340
tgtatagtga	ttgagatgtc	tattttatta	ttgatagact	attactaatg	tcaatattga	2400
acaactacct	ggaattcctg	cctgggtttc	ctacccaaat	tgtaccactc	cttgaagaac	2460
tacaggcaca	gtaaaaaaa	tatggcgtat	tatgtgaact	aaaagagttc	taaaggagtt	2520
cttaaaggag	tggtagaatt	tgggtaggaa	agtgattaag	tccaacttaa	aaccaacagt	2580
ctcaaacgtc	tacaactaca	atgtccaatg	agccactagc	cacatgaggc	tatttaagta	2640
aatttagttt	aaaatccagt	tttcgaatta	cattagccac	attgtcaagt	gttcaaatca	2700
cagggtggta	gtggctactg	tactgggcaa	catacattat	agaacatttt	cattatagga	2760
agttttattg	ggcagtgtg	ctcttaaata	ctaccttcca	ctcaactccc	atacaacttt	2820
cttttgtaca	ttttgatact	ttctacctaa	tggcagctct	tccaaaatag	ctgctttaaa	2880
ctctgattta	attttcaata	tttggtttca	tttttcaaca	ggccaagagg	cctctggtaa	2940
tgaagtgcta	tatatatata	tatgatggag	tctcactgtg	ctgccagggc	tacagtgcag	3000
tggtctgatc	ttggctctct	ccaatctccg	ccttgtaggt	tttcaagcaa	ttctcctgcc	3060
tcagcctcct	tagtagctgg	gaccacagac	atctgtcacc	acaccagct	aactttttgt	3120
atttttggta	gagacggggt	ttcgccatat	tgactgggct	ggtctcaaac	tcctgacctc	3180

aagtgatcca cccaccttgg tctcccaaag tgctgggatt acatgcgtga gccaccacac 3240
ttggcctaca ttttttcttt atataccaga acatctataa caggcacctt atctactcat 3300
tagtgaagag ataattggat tacacaggca ggcttggtta ctacatccag aatgtagaaa 3360
ctgctttctt caacatcttg gttctagcta gtaataacaa tataattctt tggcagatat 3420
tcagaataac attttaaact acattttctt agaaaattgc attctttagt tgagcagtgt 3480
atgggtctctt ttgttcagaa tttaaaactg ataaccaatg aaagcctttt ctcttattcc 3540
tctaccgtca ttacatgat aatctgaagc taatatgaca atatttaaact actaagtggg 3600
actaggggaac tacaagaata ctgtaaagct taagccattg ttatcactgt catttagcat 3660
ttaataacaa aactatacag aattatgtgc ataccaatga atgttttgta ccatctagtt 3720
aaatttttta aataaagttt tatgggttaa gcagaagaca actgtcatac tgaattttat 3780
taaaagtata tatacttcaa attcaaagca tcccttagga cccacagaat atattaaaac 3840
taccaccctt aaattttata tttttgcttt aagacagaca atgcaaaggc aactggcaag 3900
aggtgagcaa atgttttaga acatttatat tattgcttaa aatgagattt gaaattgtaa 3960
taaaattctt ggttatgaaa aaaaaaaaaa aaaaa 3995

<210> 34
<211> 2742
<212> DNA
<213> Homo sapiens

<400> 34
ccgcctctt cctcccttcc ttctttcctt gctttcgccg cgcactccgc cgccatggag 60
cagcgccgcg tcaccgactt ctctcgcgcg cgccgccccg ggcccccccg catcgcgccg 120
cccaagctgg cctgccgcac cccagcccc gccaggcccc cactccgcgc cccggcctcc 180
gctaccagtg gcagccgcaa gcgcgccccg ccgcccgcgc cccccggacg cgaccaggcc 240
aggccaccgg cccgcaggag actgcggctg tcggtggacg aggtttccag cccagttacc 300
cccgaggccc cagacatccc agcctgccct tctccgggcc agaagataaa gaaatccacc 360
ccggcagcag gtcagccgcc ccacctgaca tccgcgcagg accaggacac catctctgag 420
cttgcgctcat gcctgcaacg ggcccgggag ctgggggcaa gagtccgggc gctgaaggcc 480
agtgccagg atgctgggga gtcttgacc ccagaggccg agggccgccc tgaggagcca 540
tgtggcgaga aggcgccccg ctaccagcgc ttccatgccc tggcccagcc cggcctgccg 600
ggactcgtgc tgccctacaa gtaccaggtg ctggcggaga tgttccgcag catggacacc 660
atcgtgggca tgctccacaa ccgctccgag acgcccacct ttgccaaggc ccagcggggc 720

gtccaggaca	tgatgcgtag	gcgtttttgag	gagtgcgaatg	ttggccagat	caaaaccgtg	780
tacccgccct	cctaccgctt	ccgccaggag	cgcagtgtcc	ccaccttcaa	ggatggcacc	840
aggaggtcag	attaccagct	caccatcgag	ccactgctgg	agcaggaggc	tgacggagca	900
gccccccagc	tcacggcctc	gcgcctcctg	cagcgacggc	agatcttcag	ccagaagctg	960
gtggagcatg	tcaaggagca	ccacaaggcc	ttcctggcct	ccctgagccc	cgccatggtg	1020
gtgccggagg	accagctgac	ccgctggcac	ccgcgcttca	acgtggatga	agtacccgac	1080
atcgagccgg	ccgcgctgcc	ccagccaccc	gccacggaga	agctcaccac	tgctcaggag	1140
gtgctggccc	gggcccgcaa	cctgatttca	cccaggatgg	agaaggcctt	gagtcaattg	1200
gccttgcgct	ctgctgcgcc	cagcagcccc	gggtctccca	ggccagcact	gccggctacc	1260
ccaccagcca	ccccgcctgc	agcctctccc	agtgctctga	aggggggtgc	ccaggatctg	1320
ctggagcgga	tccgagccaa	ggaggcacag	aagcagctgg	cacagatgac	gcggtgcccg	1380
gagcaggagc	agcggctgca	gcgcttagaa	cggctgcctg	agctggcccc	cgctgctgcg	1440
agcgtctttg	tgtccgaacg	caagcctgcg	ctcagcatgg	aggtggcctg	tgccaggatg	1500
gtgggcagct	gttgtactat	catgagccct	ggggaaatgg	agaagcacct	gctgctcctc	1560
tccgagctgc	tgccggactg	gctcagcctc	caccgcatcc	gcaccgacac	ctacgtcaag	1620
ctggacaagg	ccgcggacct	cgcccacatc	actgcacgcc	tggcccacca	gacacgtgct	1680
gaggaggggc	tgtgagcctg	ggggccactg	tggacagacg	tgggcttcag	aagctcgctg	1740
gcctgggccc	accagcattt	tcttttatga	acatgataca	ctttggcctt	cctttcccca	1800
gcgcccctga	gggccagagg	cagatgtggg	ctgcaggctg	cacagcccga	gggtctctgg	1860
ctgcgggcgg	tgggcccctt	catggggctc	acctgggtga	ttcacattaa	accggtttct	1920
gtgggcacct	ctgtccttgc	tgctgggtgg	gaagggaagc	cagatccagc	accccctggg	1980
gggccatcgg	gagtgtggct	gggggtgaag	ggggctctgt	ggcaatatgg	ggttgggtag	2040
tgtgggtggc	aggccatccc	ctctaattct	ggaacctctg	aatatgggac	ctcccacagc	2100
aaagggtgac	ttttgtcatt	aagaaagact	gggggtgggtg	tggtgggtca	cgctgtgaac	2160
cccagcactt	tgggaggcca	aggtgggcag	atcacgaggt	caagagatcg	agaccatcct	2220
ggcgaacatg	gtgaaacccc	atctctacta	aaaatacaaa	aaattagccg	ggtgtgggtg	2280
tgggcacctg	togtcccagc	tactagggag	gctgaggcag	gagaatgggtg	tgaaccagg	2340
aggcacagct	tgcagtgagc	gaagatcgca	ccactgcacg	cactccagcc	tgggtgacag	2400
agcgagactc	cgtctcaaaa	aaaaaaattt	caagactgga	gaggtgatcc	tgaattgtcc	2460

```

agctacgccc catgtcatca cagggccttc atgacagggc cagagccagc cagctttgaa 2520
gacgcggccc tgccccgaca caggcagcct ggagaagctg ggcaggacaa gtaggacatc 2580
cctggagcct ccagaaggga ctggcctctg cccacacctt gacttcagta tttctgacct 2640
cctaaactct aataaagtca tgcttacagc cactaaaaaa aaaaaaaaaa aaaaaaaaaa 2700
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2742

```

```

<210> 35
<211> 8449
<212> DNA
<213> Homo sapiens

```

```

<400> 35
gcgacctccg gcgccatttt gtagagaaac aagcggagtt aaccgaagag ggggtcgagg 60
agagccggag tcggggaccc aggagtttcc tgtgtccagc gctgccggag ccgcctgagg 120
tgccatgttt cagaacagag taagaccctt ggtaaagaag aactgaagat attatacaga 180
taccagatat agcctaatta caaagaaagc attaacctgc ctctgaggtg actaaagggg 240
aataatggtg attttgcgcc gggctcggcc gcctgcttcc gcccaccca gcaatgaatc 300
ttgactcgct ctgcgtggcc ttgtctcaaa tcagctacct ggtggacaat ttaaccaaga 360
aaaattaccg agccagccag caggaaatac agcatattgt gaatcggcac ggtcctgagg 420
cagacaggca tttattacgc tgcctatttt cgcattgtga tttcagtggc gatggtaaaa 480
gcagtggcaa agatttccat cagactcagt ttctgattca ggagtgtgcg ttgctgatta 540
caaagccaaa ttttatctcg acgctgtcct atgccattga taatccattg cactatcaga 600
agagtttaaa gcctgcaccc cacttatttg cccagctgag taaagtgtc aaattaagca 660
aagtacaaga ggtaattttt ggccttgccc tgttgaattc ttccagctca gatcttagag 720
gtttcgctgc ccagtttatc aaacagaagc ttccagatct tctgcgttct tacattgacg 780
cagacgtcag tggaaatcaa gaagggtggc tccaagatat agcaatagag gtcctacacc 840
tcctcctctc ccatctcctc tttgggcaga agggagcctt tggagttgga caagaacaga 900
tagacgcttt tcttaagacg ctgcgcagag attttcccca agaacgctgt cccgtggtgc 960
tcgcaccact tttataccct gaaaaacggg acatttcta at ggacaggatc ctgcctgatt 1020
ccggagggggt agctaaaacc atgatggaga gctctttggc tgatttcatg caagaagtag 1080
gctatggctt ttgtgcaagt attgaagaat gtcgcaatat aatcgtgcag tttggtgttc 1140
gggaggtcac agctgcccag gttgcaaggg ttttggaat gatggctcga actcattcag 1200
gattaacaga tggcattcca ttacagagta tttctgctcc gggcagtggt atctggagtg 1260

```

atgggaaaga taaaagtgat ggagcacagg cacacacatg gaatgtagaa gtcttgattg	1320
acgttcttaa agaactgaat ccaagtttga atttcaagga agtaacttat gaactggacc	1380
atcctggatt tcaaattcgt gacagtaaag gacttcataa tgtggtttat ggcattcaga	1440
ggggtttggg tatggaagtg ttcccagtag acctcatata tagaccttgg aaacatgctg	1500
aaggccagct ctcccttcatt caacattccc ttataaatcc agagatcttc tgttttgctg	1560
actatccctg tcatactgtt gccactgata ttctgaaagc accaccagag gatgacaatc	1620
gagaaattgc cacatggaag agcttggatt tgattgaatc tctgctgagg cttgcagagg	1680
ttgggcagta tgagcaagtc aaacagctct tcagcttccc tatcaaacac tgtccagaca	1740
tgctggtatt ggccttacta caaattaaca cctcttggca taccttgccg catgaactta	1800
tctccactct gatgccatt ttccttggaa accatccata ctcagctatt attttgcact	1860
atgcatggca tgggcaggga cagtctccct caattcgcca acttatcatg catgcaatgg	1920
cagaatggta catgagaggg gagcagtatg atcaggccaa attgtctoga atacttgatg	1980
tggcccagga cttgaaggcc ttgtcaatgc tgctaaatgg tactccattt gcctttgtta	2040
ttgaccttgc tgcacttgct tcacgtcgtg aatacctcaa acttgataag tggctcacag	2100
ataaaattcg agagcatggg gagcctttta tccaggcgtg tatgactttt ttaaagagac	2160
ggtgtccttc tattttgggc ggacttgccc cagaaaaaga ccagcccaaa agtgctcaac	2220
ttcctccaga aactttggcg acaatgttgg cctgtctgca agcttgtgca gggagtgttt	2280
ctcaggagct atcagaaact atcctcacca tggtagccaa ttgcagtaat gttatgaata	2340
aggccagaca accaccacct ggagttatgc caaaaggacg tcctcctagt gctagcagct	2400
tagatgccat ttctcctgtt cagattgacc ctcttgctgg aatgacatct cttagtatag	2460
gtggttcagc tgccccac acccagagta tgcagggttt tcctccaaat ttgggttctg	2520
cattcagtac cctcagtc aacagcaaaag catttccacc ctttcaacc cccaatcaga	2580
ccactgcatt cagtggatt ggaggacttt catcacagct tccagtaggt ggtcttggca	2640
caggcagcct gactggtata ggaactggtg ctcttggact cctgagctg aataacgacc	2700
cttttgtaca gaggaaactg ggcacctctg gactgaatca gcctacattc cagcagagta	2760
agatgaaacc ttcggacttg tctcaggtgt ggccagaggc aaaccagcac tttagtaaag	2820
agatagatga tgaagcaaac agctatttcc agcgaatata taatcatcca ccacatccaa	2880
ccatgtctgt tgatgaggta ttagaaatgc tgcagagatt taaagactct actataaaga	2940
gggaacgaga agtatttaac tgtatgctaa ggaacttgtt tgaagaatat cgtttttttc	3000
cccagtatcc tgataaagag ttacatataa cagcctgcct atttggtggt ataattgaga	3060

aaggactggt cacttacatg gcactaggtc tggctctacg atatgttctt gaagccttac	3120
gcaagccttt tggatccaaa atgtattatt tcgggattgc tgcactagat agatttaaaa	3180
acagattgaa ggactatccc cagtattgtc agcatttggc ttctatcagt cactttatgc	3240
aatttccaca tcatttacag gagtatattg agtatggaca gcagtctaga gatcctcctg	3300
tgaaaatgca aggtctctatc acaaccctg gaagtattgc actggctcag gccagggctc	3360
aggcccaggt tccagcaaaa gctcctcttg ctgggtcaagt tagcactatg gtaaccacct	3420
caacaactac cactgttgct aaaacggtta cggtcaccag gccaaactgga gtcagcttta	3480
agaaagatgt gccaccttct attaatacta caaatataga tacgttgctt gtggccacag	3540
atcaaactga gagaattgtg gagccccag aaaatatcca ggagaaaatt gcttttattt	3600
tcaataatct ctcacagtca aatatgacac aaaagggtga agagctaaag gaaacgggtga	3660
aagaagaatt tatgccttgg gtttcacagt atctgggttat gaagagagtc agtattgagc	3720
caaactttca tagcctgtat tcaaacttcc ttgacacgct gaagaatcct gaatttaaca	3780
agatggttct gaatgagacc tacagaaaca ttaaagtgtc cctgacctct gataaagctg	3840
cagccaatth ctcagatcgt tctttgctga agaacttggg acattggcta ggaatgatca	3900
cattagctaa aaacaaaccc atcttacaca ctgacttgga tgtgaaatca ttgctgctag	3960
aggcttatgt taaaggacaa caagaattgc tctatgtagt gccctttgtt gccaaagtct	4020
tagaatctag cattcgtagt gtggttttta ggccacccaaa cccttggaaca atggcaatta	4080
tgaatgtatt agctgagcta catcaggagc atgacttaaa gttaaacttg aagtttgaaa	4140
tcgaggttct ctgcaagaac cttgcattag acatcaatga gctaaaacct ggaaacctcc	4200
taaaggataa agatcgctg aagaatttag atgagcaact ctctgctcca aagaaagatg	4260
tcaagcagcc agaagaactc cctcccatca caaccacaac aacttctact acaccagcta	4320
ccaacaccac ttgtacagcc acggttccac cacagccaca gtacagctac cagcacatca	4380
atgtctattc ccttgcgggc ttggcaccac acattactct gaatccaaca attcccttgt	4440
ttcaggccca tccacagttg aagcagtgtg tgcgtcaggc aattgaacgg gctgtccagg	4500
agctgggtcca tcctgtggtg gatcgatcaa ttaagattgc catgactact tgtgagcaaa	4560
tagtcaggaa ggattttgcc ctggattcgg aggaatctcg aatgcgaata gcagctcatc	4620
acatgatgcy taacttgaca gctggaatgg ctatgattac atgcagggaa cctttgctca	4680
tgagcatatc taccaactta aaaaacagtt ttgcctcagc ccttcgtact gcttccccac	4740
aacaaagaga aatgatggat caggcagctg ctcaattagc tcaggacaat tgtgagttgg	4800

cttgctgttt	tattcagaag	actgcagtag	aaaaagcagg	ccctgagatg	gacaagagat	4860
tagcaactga	atttgagctg	agaaaacatg	ctaggcaaga	aggacgcaga	tactgtgatc	4920
ctgttggttt	aacatatcaa	gctgaacgga	tgccagagca	aatcaggctg	aaagttggtg	4980
gtgtggaccc	aaagcagttg	gctgtttacg	aagagtttgc	acgcaatggt	cctggcttct	5040
tacctacaaa	tgacttaagt	cagcccacgg	gatttttagc	ccagcccatg	aagcaagctt	5100
gggcaacaga	tgatgtagct	cagatttatg	ataagtgtat	tacagaactg	gagcaacatc	5160
tacatgccat	cccaccaact	ttggccatga	accctcaagc	tcaggctctt	cgaagtctct	5220
tggaggttgt	agttttatct	cgaaactctc	gggatgccat	agctgctctt	ggattgctcc	5280
aaaaggctgt	agagggctta	ctagatgcca	caagtgggtg	tgatgctgac	cttctgctgc	5340
gctacagggg	atgccacctc	ttggtcctaa	aagctctgca	ggatggccgg	gcatatgggt	5400
ctccatgggt	caacaaacag	atcacaaggt	gcctaattga	atgtcgagat	gaatataaat	5460
ataatgtgga	ggctgtggag	ctgctaattc	gcaatcattt	ggttaatatg	cagcagtatg	5520
atcttcacct	agcgcagtca	atggagaatg	gcttaaaacta	catggctgtg	gcatttgcta	5580
tgcagttagt	aaaaatcctg	ctgggtggatg	aaaggagtgt	tgctcatgtt	actgaggcag	5640
atctgttcca	caccattgaa	accctcatga	ggattaatgc	tcattccaga	ggcaatgctc	5700
cagaaggatt	gccccagctg	atggaagtag	tgcgatccaa	ctatgaagca	atgattgatc	5760
gtgctcatgg	aggcccaaac	tttatgatgc	attctgggat	ctctcaagcc	tcagagtatg	5820
atgacctctc	aggcctgagg	gagaaggcag	agtatcttct	gagggaatgg	gtgaatctct	5880
accattcagc	agcagctggc	cgcgacagta	ccaaagcttt	ctctgcattt	gttggacaga	5940
tgcaccagca	aggaataactg	aagaccgatg	atctcataac	aaggttcttt	cgtctgtgta	6000
ctgaaatgtg	tgttgaaatc	agttaccgtg	ctcaggctga	gcagcagcac	aatcctgctg	6060
ccaatcccac	catgatccga	gccaagtgct	atcacaacct	ggatgccttt	gttcgactca	6120
ttgcactgct	cgtgaaacac	tcaggggagg	ccaccaacac	tgtcaciaag	attaatctgc	6180
tgaacaaggt	ccttgggtata	gtagtgggag	ttctccttca	ggatcatgat	gttcgtcaga	6240
gtgaatttca	gcaacttccc	taccatcgaa	tttttatcat	gcttctcttg	gaactcaatg	6300
cacctgagca	tgtgttgga	accattaatt	tccagacact	tacagctttc	tgcaatacat	6360
tccacatctt	gaggcctacc	aaagctcctg	gctttgtata	tgcttggtt	gaactgattt	6420
cccatcggat	atttattgca	agaatgctgg	cacatacgcc	acagcagaag	gggtggccta	6480
tgtatgcaca	gctactgatt	gatttattca	aatatttagc	gcctttcctt	agaaatgtgg	6540
aactcaccaa	acctatgcaa	atcctctaca	agggcacttt	aagagtgctg	ctggttcttt	6600

tgcattgattt cccagagttc ctttgtgatt accattatgg gttctgtgat gtgatccac	6660
ctaattgtat ccagttaaga aatttgatcc tgagtgcctt tccaagaaac atgaggctcc	6720
ccgacccatt cactcctaata ctaaagggtg acatgttgag tgaaattaac attgctcccc	6780
ggattctcac caatttctact ggagtaatgc cacctcagtt caaaaaggat ttggattcct	6840
atcttaaaac tcgatcacca gtcactttcc tgtctgatct gcgcagcaac ctacaggtat	6900
ccaatgaacc tgggaatcgc tacaacctcc agctcatcaa tgcactggtg ctctatgtcg	6960
ggactcaggc cattgcgcac atccacaaca agggcagcac accttcaatg agcaccatca	7020
ctcactcagc acacatggat atcttccaga atttggctgt ggacttggac actgagggtc	7080
gctatctctt tttgaatgca attgcaaact agctccggtt cccaaatagc cacactcact	7140
acttcagttg caccatgctg tacctttttg cagaggccaa tacggaagcc atccaagaac	7200
agatcacaag agttctcttg gaacggttga ttgtaaatag gccacatcct tggggtcttc	7260
ttattacctt cattgagctg attaaaaacc cagcgtttaa gttctggaac catgaatttg	7320
tacactgtgc cccagaaatc gaaaagttat tccagtcggt cgcacagtgc tgcattgggac	7380
agaagcaggc ccagcaagta atggaagga caggtgccag ttagacgaaa ctgcatctct	7440
gttgtagctg tcagtctaga ggtctcactg caccgagttc ataaactgac tgaagaatcc	7500
tttcagctct tctgacttt cccagccctt tggtttgttg gtatctgccc caactactgt	7560
tgggatcagc ctctgtctt atgtgggcac gttccaaagt ttaaattgcat ttttttgact	7620
cttggccaaa atttagaaga tgctgtgaat atcatcttga acttgtgtaa atacatgaaa	7680
gagaaaacct ttgtctggaa cttcttggct ttgtgcaagc tgtgtccaag gcaagtacat	7740
aaactggtac cttgtaatga agaggcagct gatgccatgc acttgtctga gggcatagct	7800
ccatgtcttc tgacattcct ggtgtcccaa agaatagcaa aaagccagtt tgaatattat	7860
gtaacttatt tttttaatgt ggacagggga ccttgaaaat cactaagtta ttaaaaatgt	7920
ggatgtgcta gaattggata tgtccaggaa catgggaagg gctcactatt ggaatcccat	7980
gagtttccat tttgtctcta cccaaacgta ttccaaagct gactgcattt gtaccatctt	8040
atctcttttg gggattatac acctcagccg cctgagatgg gggtcagctc tttatataaa	8100
gggaaaccag accaggccta aagcccaccc ctaccctcac ccccccaatc ctctcctgaa	8160
acttaaaaac agtggaata taggaaaggg aaccaaactc cattaattaa ttgttctccc	8220
ccattacccc actgaatgaa tggccatata ggctaagctg aataatgaca aagttgaaag	8280
gaccaatata gcccctttta taaggatttt gaatgttttg caaatgtatt ggtccctgtg	8340

ttgtatTTTTg tagcctTTTTc ctgggcttca gctcccctac ttcttgtatg tgtatgcata 8400
 ctgtagctaa ccattaaagt catgacacac aaaaaaaaaa aaaaaaaaaa 8449

<210> 36
 <211> 5019
 <212> DNA
 <213> Homo sapiens

<400> 36
 gcgacctccg gcgccatttt gtagagaaac aagcggagtt aaccgaagag ggggtcgagg 60
 agagccggag tcggggaccc aggagtttcc tgtgtccagc gctgccggag ccgcctgagg 120
 tgccatgttt cagaacagag taagaccctt ggtaaagaag aactgaagat attatacaga 180
 taccagatat agcctaatta caaagaaagc attaacctgc ctctgaggtg actaaagggg 240
 aataatggtg attttgcgcc gggctcgccc gcctgcttcc gcccacaacca gcaatgaatc 300
 ttgactcgct ctgctggccc ttgtctcaaa tcagctacct ggtggacaat ttaaccaaga 360
 aaaattaccg agccagccag caggaaatac agcatattgt gaatcggcac ggtcctgagg 420
 cagacaggca tttattacgc tgcctatttt cgcattgtga tttcagtggc gatggtaaaa 480
 gcagtggcaa agatttccat cagactcagt ttctgattca ggagtgtgcg ttgctgatta 540
 caaagccaaa ttttatctcg acgctgtcct atgccattga taatccattg cactatcaga 600
 agagtttaaa gcctgcaccc cacttatttg ccagctgag taaagtgtc aaattaagca 660
 aagtacaaga ggtaattttt ggccttgccc tgttgaattc ttccagctca gatcttagag 720
 gtttcgctgc ccagtttatt aaacagaagc ttccagatct tctgcgttct tacattgacg 780
 cagacgtcag tggaaatcaa gaaggtggct tccaagatat agcaatagag gtcctacacc 840
 tctcctctc ccatctctc tttgggcaga agggagcctt tggagttgga caagaacaga 900
 tagacgcttt tcttaagacg ctgcccagag attttcccca agaacgtgt cccgtgggtgc 960
 tcgcaccact tttataccct gaaaaacggg acattctaata ggacaggatc ctgcctgatt 1020
 ccggaggggt agctaaaacc atgatggaga gctctttggc tgatttcatg caagaagtag 1080
 gctatggctt ttgtgcaagt attgaagaat gtcgcaatat aatcgtgcag tttggtgttc 1140
 gggaggtcac agctgccag gttgcaaggg ttttgggaat gatggctcga actcattcag 1200
 gattaacaga tggcattcca ttacagagta tttctgctcc gggcagtggg atctggagtg 1260
 atgggaaaga taaaagtgat ggagcacagg cacacacatg gaatgtagaa gtcttgattg 1320
 acgttcttaa agaactgaat ccaagtttga atttcaagga agtaacttat gaactggacc 1380
 atcctggatt tcaaattcgt gacagtaaag gacttcataa tgtggtttat ggcattcaga 1440

ggggtttggg tatggaagtg ttcccagtag acctcatata tagaccttgg aaacatgctg	1500
aaggccagct ctctttcatt caacattccc ttataaatcc agagatcttc tgttttgctg	1560
actatccctg tcatactgtt gccactgata ttctgaaagc accaccagag gatgacaatc	1620
gagaaattgc cacatggaag agcttggatt tgattgaatc tctgctgagg cttgcagagg	1680
ttgggcagta tgagcaagtc aaacagctct tcagcttccc tatcaaacac tgtccagaca	1740
tgctggtatt ggccttacta caaattaaca cctcttggca taccttgccg catgaactta	1800
tctccactct gatgccaat ttcttggaa accatcctaa ctgagctatt attttgcact	1860
atgcatggca tgggcaggga cagtctccct caattcgcca acttatcatg catgcaatgg	1920
cagaatggta catgagaggg gagcagtatg atcaggccaa attgtctcga atacttgatg	1980
tggcccagga cttgaaggcc ttgtcaatgc tgctaaatgg tactccattt gcctttgtta	2040
ttgaccttgc tgcacttgct tcacgtcgtg aatacctcaa acttgataag tggctcacag	2100
ataaaattcg agagcatggg gagcctttta tccaggcgtg tatgactttt ttaaagagac	2160
ggtgtccttc tattttgggc ggacttgccc cagaaaaaga ccagcccaa agtgctcaac	2220
ttctccaga aactttggcg acaatgttgg cctgtctgca agcttgtgca gggagtgttt	2280
ctcaggagct atcagaaact atcctcacca tggtagccaa ttgcagtaat gttatgaata	2340
aggccagaca accaccacct ggagttatgc caaaaggacg tctctctagt gctagcagct	2400
tagatgccat ttctctgtt cagattgacc ctcttgctgg aatgacatct cttagtatag	2460
gtggttcagc tgccctcac acccagagta tgcagggttt tctccaaat ttgggttctg	2520
cattcagtag cctcagtc caagcaaaag catttccacc cctttcaacc cccaatcaga	2580
ccactgcatt cagtgggtatt ggaggacttt catcacagct tccagtaggt ggtcttggca	2640
caggcagcct gactgggtata ggaactggtg ctcttggact ccctgcagtg aataacgacc	2700
cttttgtaca gaggaaactg ggcacctctg gactgaatca gcctacattc cagcagagta	2760
agatgaaacc ttcggacttg tctcaggtgt ggccagaggc aaaccagcac tttagtaaag	2820
agatagatga tgaagcaaac agctatttcc agcgaatata taatcatcca ccacatccaa	2880
ccatgtctgt tgatgaggta ttagaaatgc tgcagagatt taaagactct actataaaga	2940
gggaacgaga agtatTTAAC tgtatgctaa ggaacttggt tgaagaatat cgTTTTTTTc	3000
cccagtatcc tgataaagag ttacatataa cagcctgcct atttgggtgg ataattgaga	3060
aaggactggc cacttacatg gcaactaggtc tggctctacg atatgttctt gaagccttac	3120
gcaagccttt tggatccaaa atgtattatt tcgggattgc tgcactagat agatttaaaa	3180
acagattgaa ggactatccc cagtattgtc agcatttggc ttctatcagt cactttatgc	3240

aatttccaca tcattttacag gagtatattg agtatggaca gcagtctaga gatcctcctg	3300
tgaaaatgca aggctctatc acaacccttg gaagtattgc actggctcag gcccaggctc	3360
aggcccaggt tccagcaaaa gctcctcttg ctgggtcaagt tagcactatg gtaaccacct	3420
caacaactac cactgttgct aaaacggtta cggtcaccag gccaaactgga gtcagcttta	3480
agaaagatgt gccaccttct attaatacta caaatataga tacgttgctt gtggccacag	3540
atcaaactga gagaattgtg gagccccag aaaatatcca ggagaaaatt gcttttat	3600
tcaataatct ctcacagtca aatatgacac aaaagggtga agagctaaag gaaacgggtga	3660
aagaagaatt tatgccttgg gtttcacagt atctgggttat gaagagagtc agtattgagc	3720
caaactttca tagcctgtat tcaaacttcc ttgacacgct gaagaatcct gaatttaaca	3780
agatggttct gaatgagacc tacagaaaca ttaaagtgtc cctgacctct gataaagctg	3840
cagccaattt ctcagatcgt tctttgctga agaacttggg acattggcta ggaatgatca	3900
cattagctaa aaacaaaccc atcttacaca ctgacttggga tgtgaaatca ttgctgctag	3960
aggcttatgt taaaggacaa caagaattgc tctatgtagt gccctttgtt gccaaagtct	4020
tagaatctag cattcgtagt gtggttttta ggccaccaaa cccttggaca atggcaatta	4080
tgaatgtatt agctgagcta catcaggagc atgacttaaa gttaaacttg aagtttgaaa	4140
tcgaggttct ctgcaagaac cttgcattag acatcaatga gctaaaacct ggaaacctcc	4200
taaaggataa agatcgccctg aagaatttag atgagcaact ctctgctcca aagaaagatg	4260
tcaagcagcc agaagaactc cctcccatca caaccacaac aacttctact acaccagcta	4320
ccaacaccac ttgtacagcc acggttccac cacagccaca gtacagctac cagcacatca	4380
atgtctattc ccttgcgggc ttggcaccac acattactct gaatccaaca attcccttgt	4440
ttcaggccca tccacagttg aagcagtgtg tgcgtcaggc aattgaacgg gctgtccagg	4500
agctgggtcca tcctgtggtg gatcgatcaa ttaagattgc catgactact tgtgagcaaa	4560
tagtcaggaa ggattttgcc ctggattcgg aggaatctcg aatgcgaata gcagctcatc	4620
acatgatgcg taacttgaca gctggaatgg ctatgattac atgcaggga cctttgctca	4680
tgagcatatc taccaactta aaaaacagtt ttgcctcagc ccttcgtgta agttggctat	4740
ttccttggtg taggtacaaa acgtattact gcttgtctgt aataatTTTT ttctttgtct	4800
atatatggca ctgggctgta ccacttattc ttaataatca ccatatttgt ttgatgtctt	4860
ccatcatttt agattgtaat tctgtgaggc aaagcatcat gtctgtgtgt tttttttttt	4920
ttctgttata ttctcaacac gatgtttgac agatagtaga taccCAAATA tttgttggtt	4980

taaataaatt aagattttaa aaggaaaaaa aaaaaaaaaa

5019

<210> 37

<211> 1616

<212> DNA

<213> Homo sapiens

<400> 37

gcgcacgtcc cggattcctc ccacgagggg gggggtgcg gccaaatctc ccgccaggtc	60
agcggccggg cgctgattgg ccccatggcg gggggccgg ctcgtgattg gccagcacgc	120
cgtggtttaa agcggtcggc gcgggaacca ggggcttact gcgggacggc cttggagagt	180
actcgggttc gtgaacttcc cggaggcgca atgagctgca ttaacctgcc cactgtgctg	240
cctggctccc ccagcaagac ccgggggcag atccagggtga ttctcgggcc gatgttctca	300
ggaaaaagca cagagttgat gagacgcgtc cgtogettcc agattgctca gtacaagtgc	360
ctggtgatca agtatgccaa agacactcgc tacagcagca gcttctgcac acatgaccgg	420
aacaccatgg aggcactgcc cgctgcctg ctccgagacg tggcccagga ggccctgggc	480
gtggctgtca taggcatcga cgaggggcag tttttccctg acatcgtgga gttctgcgag	540
gccatggcca acgcgggaa gaccgtaatt gtggctgcac tggatgggac cttccagagg	600
aagccatttg gggccatcct gaacctggtg ccgctggccg agagcgtggt gaagctgacg	660
gcggtgtgca tggagtgtt ccgggaagcc gcctatacca agaggctcgg cacagagaag	720
gaggctgagg tgattggggg agcagacaag taccactccg tgtgtcggct ctgctacttc	780
aagaaggcct caggccagcc tgccgggccc gacaacaaag agaactgccc agtgccagga	840
aagccagggg aagccgtggc tgccaggaag ctctttgccc cacagcagat tctgcaatgc	900
agccctgcca actgagggac ctgcgagggc cgcccgctcc ctctctgcca ctgccgccta	960
ctggacgctg ccctgcatgc tgcccagcca ctccaggagg aagtcgggag gcgtggaggg	1020
tgaccacacc ttggccttct gggaactctc ctttgtgtgg ctgccccacc tgccgcatgc	1080
tccctcctct cctaccact ggtctgctta aagcttcct ctcagctgct gggacgatcg	1140
cccaggctgg agctggcccc gcttgggtggc ctgggatctg gcacactccc tctccttggg	1200
gtgagggaca gagccccacg ctgttgacat cagcctgctt ctccccctct gcggctttca	1260
ctgctgagtt tctgttctcc ctgggaagcc tgtgccagca cctttgagcc ttggcccaca	1320
ctgaggetta ggctctctg cctgggatgg gctccaccc tccctgagg atggcctgga	1380
ttcacgccct cttgtttcct tttgggtcga aagccctcc tacctctggt gatggtttcc	1440
acaggaacaa cagcatcttt caccaagatg ggtggcacca accttgctgg gacttggatc	1500

ccaggggctt atctcttcaa gtgtggagag ggcagggtcc acgcctctgc tgtagcttat 1560
gaaattaact aattgaaaat tctctggttg gtggaaaaaa aaaaaaaaaa aaaaaa 1616

<210> 38
<211> 3839
<212> DNA
<213> Homo sapiens

<400> 38
agacaggcgg agcctcacct ggggctgccc gccagcccag acaagctcag actgggtgcc 60
tgtggccctg ggaggaggtg gaaggggagg agcaggccac acaggcacag gccggtgagg 120
gacctgcca gacctggagg gtctcgctct gtcacacagg ctggagtgc gtggtgtgat 180
cttggctcat cgtaacctcc acctcccggg ttcaagtgat tctcatgcct cagcctcccg 240
agtagctggg attacaggtg gtgacttcca agagtgactc cgtcggagga aaatgactcc 300
ccagtcgctg ctgcagacga cactgttctt gctgagtctg ctcttcctgg tccaagggtg 360
ccacggcagg ggccacaggg aagaatttctg cttctgcagc cagcgggaacc agacacacag 420
gagcagcctc cactacaaac ccacaccaga cctgcgcata tccatcgaga actccgaaga 480
ggcctcaca gtccatgcc ctttccttgc agcccacct gcttcccgat ctttcctga 540
ccccaggggc ctctaccact tctgcctcta ctggaaccga catgctggga gattacatct 600
tctctatggc aagcgtgact tcttgctgag tgacaaagcc tctagcctcc tctgcttcca 660
gcaccaggag gagagcctgg ctacaggccc cccgctgtta gccacttctg tcacctctg 720
gtggagccct cagaacatca gctgcccag tgccgccagc ttcaccttct cttccacag 780
tctcccccac acggccgctc acaatgcctc ggtggacatg tgcgagctca aaagggacct 840
ccagctgctc agccagttcc tgaagcatcc ccagaaggcc tcaaggaggc cctcgggtgc 900
ccccgccagc cagcagttgc agagcctgga gtcgaaactg acctctgtga gattcatggg 960
ggacatggtg tccttcgagg aggaccggat caacgccacg gtgtggaagc tccagcccac 1020
agccggcctc caggacctgc acatccactc ccggcaggag gaggagcaga gcgagatcat 1080
ggagtactcg gtgctgctgc ctggaacact cttccagagg acgaaaggcc ggagcgggga 1140
ggctgagaag agactcctcc tgggtggactt cagcagccaa gccctgttcc aggacaagaa 1200
ttccagccaa gtccctgggtg agaaggtctt ggggattgtg gtacagaaca ccaaagtagc 1260
caacctcacg gagcccgtgg tgctcacttt ccagcaccag ctacagccga agaattgtgac 1320
tctgcaatgt gtgttctggg ttgaagaccc cacattgagc agcccggggc attggagcag 1380
tgctgggtgt gagaccgtca ggagagaaac ccaaacatcc tgcttctgca accacttgac 1440

ctacttttgca gtgctgatgg tctcctcggg ggaggtggac gccgtgcaca agcactacct	1500
gagcctcctc tctacgtgg gctgtgtcgt ctctgccctg gcctgccttg tcaccattgc	1560
cgctacctc tgctccaggg tgccctgcc gtgcaggagg aaacctcggg actacaccat	1620
caaggtgcac atgaacctgc tgctggccgt cttcctgctg gacacgagct tctgtctcag	1680
cgagccgggtg gccctgacag gctctgagge tggctgccga gccagtgcc tcttcttgca	1740
cttctccctg ctacactgcc tttcctggat gggcctcgag gggtagaacc tctaccgact	1800
cgtgggtggag gtctttggca cctatgtccc tggctaccta ctcaagctga gcgccatggg	1860
ctggggcttc cccatctttc tggtagcgt ggtggccctg gtggatgtgg acaactatgg	1920
cccatcatc ttggctgtgc ataggactcc agagggcgtc atctaccctt ccatgtgctg	1980
gatccgggac tccttgtca gctacatcac caacctgggc ctcttcagcc tgggtgttct	2040
gttcaacatg gccatgctag ccaccatggt ggtgcagatc ctgcggtgc gccccacac	2100
ccaaaagtgg tcacatgtgc tgacactgct gggcctcagc ctggctcctg gcctgccctg	2160
ggccttgatc ttcttctcct ttgcttctgg caccttccag cttgtcgtcc tctacctttt	2220
cagcatcatc acctccttcc aaggcttctt catcttcac tggtagtgg ccatgcggct	2280
gcaggcccg ggtggccct cccctctgaa gagcaactca gacagcgcca ggctcccat	2340
cagctcgggc agcacctcgt ccagccgcat ctaggcctcc agcccacctg cccatgtgat	2400
gaagcagaga ttcggcctcg tcgcacactg cctgtggccc ccgagcccg cccagccca	2460
ggccagtcat ccgcagactt tggaaagccc aacgacctg gagagatgg ccgttgccat	2520
ggtggacgga ctcccggtt gggcttttga attggccttg gggactactc ggctctcact	2580
cagctccac gggactcaga agtgccgc catgctgct agggtagtgt cccacatct	2640
gtcccaaccc agctggagge ctggtctct cttacaaccc ctgggcccag cctcattgc	2700
tgggggcccag gccttgatc ttgaggtctt ggcacatcct taatcctgtg ccctgcctg	2760
ggacagaaat gtggctccag ttgctctgtc tctcgtggtc accctgaggg cactctgcat	2820
cctctgtcat tttaacctca ggtggcacc agggcgaatg gggcccagg cagacctca	2880
gggccagagc cctggcggag gagaggccct ttgccaggag cacagcagca gctgcctac	2940
ctctgagccc agggccctc cctccctcag ccccccagtc ctccctecat cttccctggg	3000
gttctctctc tctccaggg cctccttgct ccttcgttca cagctggggg tcccgatcc	3060
caatgctgtt ttttggggag tggtttccag gagctgcctg gtgtctgctg taaatgtttg	3120
tctactgcac aagcctcggc ctgcccctga gccaggtcg gtaccgatgc gtgggctggg	3180
ctaggctcct ctgtccatct gggcctttgt atgagctgca ttgcccttgc tcacctgac	3240

caagcacacg cctcagaggg gccctcagcc tctcctgaag ccctcttggtg gcaagaactg 3300
 tggaccatgc cagtcccgtc tggtttccat cccaccactc caaggactga gactgacctc 3360
 ctctggtgac actggcctag ggcttgacac tctcctaaga ggttctctcc aagcccccaa 3420
 atagctccag gcgcctcgg ccgcccata tgggttaattc tgtccaacaa acacacacgg 3480
 gtagattgct ggctgttgt aggtggtagg gacacagatg accgacctgg tactcctcc 3540
 tgccaacatt cagtctggtg tgtgaggcgt gcgtgaagca agaactcctg gagctacagg 3600
 gacagggagc catcattcct gcctgggaat cctggaagac ttcctgcagg agtcagcggt 3660
 caatcttgac cttgaagatg ggaaggatgt tctttttacg taccaattct tttgtctttt 3720
 gatattaaaa agaagtacat gttcattgta gagaatttgg aaactgtaga agagaatcaa 3780
 gaagaaaaat aaaaatcagc tgttgtaatc acctagcaaa ctggaaaaaa aaaaaaaaaa 3839

<210> 39

<211> 3982

<212> DNA

<213> Homo sapiens

<400> 39

gagaaatcca tgactcacat atatcgccg tcatccccag tcaagctcag ggaggaggga 60
 ggagcccagc tggggcagga gaggggtgtc tccccaccaa acaaaccgg tccctccctc 120
 tccgcactag ctgtctgccc tgccctgccg taggagatgg gctgggagcc tcccacgctc 180
 tccagctcac tcggcaggca gcggggacca gggctggcag gttaagcctc tgggggtgga 240
 tctgaaagg tggctcagcc gcctggccct gcgtgggacc ctccacctgg cagcagacag 300
 ggtctcgctc tgtcacacag gctggagtgc agtggtgtga tcttggtca tcgtaacctc 360
 cacctcccg gttcaagtga ttctcatgcc tcagcctccc gagtagctgg gattacaggt 420
 ggtgacttcc aagagtgact ccgtcggagg aaaatgactc cccagtcgct gctgcagacg 480
 aactgttcc tgctgagtct gctcttccctg gtccaagggtg cccacggcag gggccacagg 540
 gaagactttc gcttctgcag ccagcggaac cagacacaca ggagcagcct cactacaaa 600
 cccacaccag acctgcgcat ctccatcgag aactccgaag aggcctcac agtccatgcc 660
 cctttccctg cagcccaccc tgcttccga tcttccctg accccagggg cctctaccac 720
 ttctgcctct actggaaccg acatgctggg agattacatc ttctctatgg caagcgtgac 780
 ttcttgctga gtgacaaagc ctctagcctc ctctgcttcc agcaccagga ggagagcctg 840
 gctcagggcc ccccgctgtt agccacttct gtcacctcct ggtggagccc tcagaacatc 900
 agcctgccca gtgccgccag cttcaccttc tcttccaca gtctcccca cagggcgct 960

cacaatgcct	cggtggacat	gtgcgagctc	aaaagggacc	tccagctget	cagccagttc	1020
ctgaagcatc	cccagaaggc	ctcaaggagg	ccctcggtg	ccccgccag	ccagcagttg	1080
cagagcctgg	agtcgaaact	gacctctgtg	agattcatgg	gggacatggt	gtccttcgag	1140
gaggaccgga	tcaacgccac	ggtgtggaag	ctccagccca	cagccggcct	ccaggacctg	1200
cacatccact	cccggcagga	ggaggagcag	agcgagatca	tggagtactc	ggtgctgctg	1260
cctcgaacac	tcttcagag	gacgaaaggc	cggagcgggg	aggctgagaa	gagactcctc	1320
ctggtggact	tcagcagcca	agccctgttc	caggacaaga	attccagcca	agtcctgggt	1380
gagaaggctc	tggggattgt	ggtacagaac	accaaagtag	ccaacctcac	ggagcccgtg	1440
gtgctcactt	tccagcacca	gctacagccg	aagaatgtga	ctctgcaatg	tgtgttcttg	1500
gttgaagacc	ccacattgag	cagcccgggg	cattggagca	gtgctgggtg	tgagaccgtc	1560
aggagagaaa	cccaaacatc	ctgcttctgc	aaccacttga	cctactttgc	agtgtgatg	1620
gtctcctcgg	tggaggtgga	cgccgtgcac	aagcactacc	tgagcctcct	ctcctacgtg	1680
ggctgtgtcg	tctctgccct	ggcctgcctt	gtcaccattg	ccgcctacct	ctgctccagg	1740
aggaaacctc	gggactacac	catcaagggt	cacatgaacc	tgtgtgtggc	cgtcttcctg	1800
ctggacacga	gcttcctgct	cagcgagccg	gtggccctga	caggctctga	ggctggctgc	1860
cgagccagtg	ccatcttctc	gcacttctcc	ctgctcacct	gcctttcctg	gatgggcctc	1920
gaggggtaca	acctctaccg	actcgtgggt	gaggtctttg	gcacctatgt	ccctggctac	1980
ctactcaagc	tgagcgccat	gggctggggc	ttccccatct	ttctggtgac	gctgggtggcc	2040
ctggtggatg	tggacaacta	tggccccatc	atcttggtg	tgcataggac	tccagagggc	2100
gtcatctacc	cttccatgtg	ctggatccgg	gactccctgg	tcagctacat	caccaacctg	2160
ggcctcttca	gcctgggtgt	tctgttcaac	atggccatgc	tagccaccat	ggtgggtgcag	2220
atcctgcggc	tgcgccccca	cacccaaaag	tggtcacatg	tgttgacact	gctgggcctc	2280
agcctggtec	ttggcctgcc	ctgggccttg	atcttcttct	cctttgcttc	tggcaccttc	2340
cagcttgteg	tcctctacct	tttcagcatc	atcacctcct	tccaaggctt	cctcatcttc	2400
atctggtact	ggtccatgcg	gctgcaggcc	cggggtggcc	cctcccctct	gaagagcaac	2460
tcagacagcg	ccaggctccc	catcagctcg	ggcagcacct	cgtccagccg	catctaggcc	2520
tccagcccac	ctgcccattg	gatgaagcag	agattcggcc	tcgtcgaca	ctgcctgtgg	2580
ccccgagcc	cggcccagcc	ccaggccagt	cagccgcaga	ctttggaaaag	cccaacgacc	2640
atggagagat	gggccgttgc	catggtggac	ggactcccgg	gctgggcttt	tgaattggcc	2700

```

ttggggacta ctcggtctc actcagctcc cacgggactc agaagtgcgc cgccatgctg 2760
cctagggtag tgteccaca tctgtcccaa cccagctgga ggccctggctc ctccctacaa 2820
cccctgggcc cagccctcat tgctgggggc caggccttgg atcttgaggg tctggcacat 2880
ccttaatcct gtgcccctgc ctgggacaga aatgtggctc cagttgctct gtctctcgtg 2940
gtcaccctga gggcactctg catcctctgt cattttaacc tcaggtggca cccagggcga 3000
atggggccca gggcagacct tcagggccag agccctggcg gaggagaggc cctttgccag 3060
gagcacagca gcagctcgcc tacctctgag cccaggeccc ctccctccct cagcccccca 3120
gtcctccctc catcttccct ggggttctcc tctctccca gggcctcctt gctccttctg 3180
tcacagctgg gggtecccca ttccaatgct gttttttggg gagtggtttc caggagctgc 3240
ctgggtgtctg ctgtaaagt ttgtctactg cacaagcctc ggccctgccc tgagccaggc 3300
tcgggtaccga tgcgtgggct gggctaggct cctctgtcca tctgggcctt tgtatgagct 3360
gcattgccct tgctcaccct gaccaagcac acgcctcaga ggggccctca gcctctcctg 3420
aagccctctt gtggcaagaa ctgtggacca tgccagtccc gtctggtttc catccacca 3480
ctccaaggac tgagactgac ctctcttggt gacactggcc tagggcctga cactctccta 3540
agaggttctc tccaagcccc caaatagctc caggcgccct cggccgcca tcatgggttaa 3600
ttctgtccaa caaacacaca cgggtagatt gctggcctgt ttaggtgggt agggacacag 3660
atgaccgacc tggctactcc tctgccaac attcagtctg gtatgtgagg cgtgcgtgaa 3720
gcaagaactc ctggagctac agggacaggg agccatcatt cctgcctggg aatcctggaa 3780
gacttcctgc aggagtcagc gttcaatctt gaccttgaag atgggaagga tgttcttttt 3840
acgtaccaat tcttttgtct tttgatatta aaaagaagta catgttcatt gtagagaatt 3900
tggaactgt agaagagaat caagaagaaa aataaaaaatc agctgttgta atcacctagc 3960
aaactggaaa aaaaaaaaaa aa 3982

```

```

<210> 40
<211> 3860
<212> DNA
<213> Homo sapiens

```

```

<400> 40
gagaaatcca tgactcacat atatcgtccg tcatccccag tcaagctcag ggaggaggga 60
ggagcccagc tggggcagga gaggggtgtc tccccacaa acaaaccgg tccctccctc 120
tccgcactag ctgtctgccc tgccctgccg taggagatgg gctgggagcc tcccacgctc 180
tccagctcac tcggcaggca gcggggacca gggctggcag gttaagcctc tgggggtgga 240

```

tcttgaaagg	tgggtccagcc	gcctggccct	gcgtgggacc	ctccacctgg	cagcaggtgg	300
tgacttccaa	gagtgaactcc	gtcggaggaa	aatgactccc	cagtcgctgc	tgacagcgac	360
actgttctctg	ctgagtctgc	tcttctctgt	ccaaggtgcc	cacggcaggg	gccacagggga	420
agactttctgc	ttctgcagcc	agcggaacca	gacacacagg	agcagcctcc	actacaaacc	480
cacaccagac	ctgcgcatct	ccatcgagaa	ctccgaagag	gccctcacag	tccatgcccc	540
tttccctgca	gcccaccctg	cttcccgatc	cttccctgac	cccagggggcc	tctaccactt	600
ctgcctctac	tggaaaccgac	atgctgggag	attacatctt	ctctatggca	agcgtgactt	660
cttgcctgagt	gacaaagcct	ctagcctcct	ctgcttccag	caccaggagg	agagcctggc	720
tcagggcccc	ccgctgttag	ccacttctgt	cacctcctgg	tggagccctc	agaacatcag	780
cctgcccagt	gccgccagct	tcaccttctc	cttccacagt	cctccccaca	cggccgctca	840
caatgcctcg	gtggacatgt	gcgagctcaa	aagggaacctc	cagctgctca	gccagttcct	900
gaagcatccc	cagaaggcct	caaggaggcc	ctcggctgcc	cccgccagcc	agcagttgca	960
gagcctggag	tcgaaactga	cctctgtgag	attcatgggg	gacatggtgt	ccttcgagga	1020
ggaccggatc	aacgccacgg	tgtggaagct	ccagcccaca	gccggcctcc	aggacctgca	1080
catccactcc	cggcaggagg	aggagcagag	cgagatcatg	gagtactcgg	tgctgctgcc	1140
tcgaacactc	ttccagagga	cgaaaggccg	gagcggggag	gctgagaaga	gactcctcct	1200
ggtggacttc	agcagccaag	ccctgttcca	ggacaagaat	tccagccaag	tcctgggtga	1260
gaaggtcttg	gggattgtgg	tacagaacac	caaagtagcc	aacctcacgg	agcccgtggt	1320
gctcactttc	cagcaccagc	tacagccgaa	gaatgtgact	ctgcaatgtg	tgttctgggt	1380
tgaagacccc	acattgagca	gcccggggca	ttggagcagt	gctgggtgtg	agaccgtcag	1440
gagagaaacc	caaacatcct	gcttctgcaa	ccacttgacc	tactttgcag	tgctgatggt	1500
ctcctcggtg	gaggtggacg	ccgtgcacaa	gcactacctg	agcctcctct	cctacgtggg	1560
ctgtgtcgtc	tctgccctgg	cctgccttgt	caccattgcc	gcctacctct	gctccaggag	1620
gaaacctcgg	gactacacca	tcaaggtgca	catgaacctg	ctgctggccg	tcttctgct	1680
ggacacgagc	ttcctgctca	gcgagccggt	ggccctgaca	ggctctgagg	ctggctgccg	1740
agccagtgcc	atcttctctg	acttctccct	gctcacctgc	ctttcctgga	tgggcctcga	1800
ggggtacaac	ctctaccgac	tcgtggtgga	ggtctttggc	acctatgtcc	ctggctacct	1860
actcaagctg	agcgccatgg	gctggggctt	ccccatcttt	ctggtgacgc	tggtggccct	1920
ggtggatgtg	gacaactatg	gccccatcat	cttggctgtg	cataggactc	cagagggcgt	1980
catctaccct	tccatgtgct	ggatccggga	ctccctggtc	agctacatca	ccaacctggg	2040

cctcttcagc	ctggtgtttc	tgttcaacat	ggccatgcta	gccacccatgg	tggtgcagat	2100
cctgcggtctg	cgccccaca	cccaaaagtg	gtcacatgtg	ctgacactgc	tgggcctcag	2160
cctggtcctt	ggcctgcctt	gggccttgat	cttcttctcc	tttgcttctg	gcaccttcca	2220
gcttgctgctc	ctctaccttt	tcagcatcat	cacctccttc	caaggcttcc	tcctcttcat	2280
ctggtactgg	tccatgcggc	tgcaggcccg	gggtggcccc	tcccctctga	agagcaactc	2340
agacagcgcc	aggctcccca	tcagctcggt	cagcacctcg	tccagccgca	tctaggcctc	2400
cagccacct	gcccattgtg	tgaagcagag	attcggcctc	gtcgcacact	gcctgtggcc	2460
cccagagccg	gcccagcccc	aggccagtca	gcccagact	ttggaaagcc	caacgaccat	2520
ggagagatgg	gccgttgcca	tggtggacgg	actcccgggc	tgggcttttg	aattggcctt	2580
ggggactact	cggtctcac	tcagctccca	cgggactcag	aagtgcgccc	ccatgctgcc	2640
tagggtactg	tccccacatc	tgtcccaacc	cagctggagg	cctggtctct	ccttacaacc	2700
cctgggcccc	gcctcattg	ctgggggcca	ggccttggtg	cttgagggtc	tggcacatcc	2760
ttaatcctgt	gcccctgcct	gggacagaaa	tgtggctcca	gttgctctgt	ctctcgtggt	2820
cacctgagg	gcactctgca	tcctctgtca	ttttaacctc	agggtggacc	cagggcgaa	2880
ggggcccagg	gcagaccttc	agggccagag	ccctggcgga	ggagaggccc	tttgccagga	2940
gcacagcagc	agctcgcta	cctctgagcc	caggccccct	ccctccctca	gccccccagt	3000
cctccctcca	tcttccctgg	ggttctctc	ctctcccagg	gcctccttgc	tccttcgttc	3060
acagctgggg	gtccccgatt	ccaatgctgt	tttttgggga	gtggtttcca	ggagctgcct	3120
ggtgtctgct	gtaaatgttt	gtctactgca	caagcctcgg	cctgcccctg	agccaggctc	3180
ggtaccgatg	cgtgggctgg	gctagggtccc	tctgtccatc	tgggcctttg	tatgagctgc	3240
attgcccttg	ctcacctga	ccaagcacac	gcctcagagg	ggccctcagc	ctctcctgaa	3300
gccctcttgt	ggcaagaact	gtggaccatg	ccagtcccgt	ctggtttcca	tcccaccact	3360
ccaaggactg	agactgacct	cctctggtga	cactggccta	gggcctgaca	ctctcctaag	3420
aggttctctc	caagccccca	aatagctcca	ggcgccctcg	gccgcccata	atggttaatt	3480
ctgtccaaca	aacacacacg	ggtagattgc	tggcctgttg	taggtggtag	ggacacagat	3540
gaccgacctg	gtcactcctc	ctgccaacat	tcagtctggt	atgtgaggcg	tgcgtgaagc	3600
aagaactcct	ggagctacag	ggacagggag	ccatcattcc	tgccctggga	tcctggaaga	3660
cttctgcag	gagtcagcgt	tcaatcttga	ccttgaagat	gggaaggatg	ttctttttac	3720
gtaccaattc	ttttgtcttt	tgatattaaa	aagaagtaca	tgttcattgt	agagaatttg	3780

gaaactgtag aagagaatca agaagaaaaa taaaaatcag ctgttgtaat cacctagcaa 3840
 actggaaaaa aaaaaaaaaa 3860

<210> 41
 <211> 3996
 <212> DNA
 <213> Homo sapiens

<400> 41
 gagaaatcca tgactcacat atatcgteccg tcatccccag tcaagctcag ggaggagggga 60
 ggagcccagc tggggcagga gaggggtgtc tccccaccaa acaaaccggg tccctccctc 120
 tccgcactag ctgtctgccc tgccctgccg taggagatgg gctgggagcc tcccacgctc 180
 tccagctcac tcggcaggca gcggggacca gggctggcag gttaagcctc tgggggtgga 240
 tcctgaaagg tggteccagcc gcctggccct gcgtgggacc ctccacctgg cagcagggtc 300
 tcgctctgtc acacaggctg gagtgcagtg gtgtgatctt ggctcatcgt aacctccacc 360
 tcccgggttc aagtgattct catgcctcag cctcccgagt agctgggatt acaggtggtg 420
 acttccaaga gtgactccgt cggaggaaaa tgactcccca gtcgctgctg cagacgacac 480
 tgttctctgt gagtctgtc ttcttggtcc aagggtgcca cggcaggggc cacagggaag 540
 actttcgctt ctgcagccag cggaaccaga cacacaggag cagcctccac taaaaaccca 600
 caccagacct gcgcatctcc atcgagaact ccgaagaggc cctcacagtc catgcccctt 660
 tcctctcagc ccacctgtct tcccgatcct tccctgaccc caggggcctc taccattctt 720
 gcctctactg gaaccgacat gctgggagat tacatcttct ctatggcaag cgtgacttct 780
 tgctgagtga caaagcctct agcctcctct gcttcagca ccaggaggag agcctggctc 840
 agggccccc gctgttagcc acttctgtca cctcctgggtg gagccctcag aacatcagcc 900
 tgcccagtgc cgccagcttc accttctcct tccacagtc tccccacacg gccgctcaca 960
 atgcctcggg ggacatgtgc gagctcaaaa gggacctcca gctgctcagc cagttcctga 1020
 agcatcccca gaaggcctca aggaggccct cggctgcccc cgccagccag cagttgcaga 1080
 gcctggagtc gaaactgacc tctgtgagat tcatggggga catgggtgtc ttcgaggagg 1140
 accggatcaa cgccacggtg tggaagctcc agcccacagc cggcctccag gacctgcaca 1200
 tccactcccg gcaggaggag gagcagagcg agatcatgga gtactcgggtg ctgctgcctc 1260
 gaacactctt ccagaggacg aaaggccgga gcggggaggc tgagaagaga ctctcctggg 1320
 tggacttcag cagccaagcc ctgttcagg acaagaattc cagccaagtc ctgggtgaga 1380
 aggtcttggg gattgtggta cagaacacca aagtagccaa cctcacggag cccgtgggtgc 1440

tcactttcca gcaccagcta cagccgaaga atgtgactct gcaatgtgtg ttctggggtg	1500
aagacccccc attgagcagc ccggggcatt ggagcagtgc tgggtgtgag accgtcagga	1560
gagaaaccca aacatcctgc ttctgcaacc acttgacctt ctttgagctg ctgatggctt	1620
cctcgggtgga ggtggacgcc gtgcacaagc actacctgag cctcctctcc tacgtgggct	1680
gtgtcgtctc tgccctggcc tgccttgta ccattgccgc ctacctctgc tccagggtgc	1740
ccctgccgtg caggaggaaa cctcgggact acaccatcaa ggtgcacatg aacctgctgc	1800
tggccgtctt cctgctggac acgagcttcc tgctcagcga gccgggtggcc ctgacaggct	1860
ctgaggctgg ctgccgagcc agtgccatct tcttgacctt ctccctgctc acctgccttt	1920
cctggatggg cctcaggggg tacaacctct accgactcgt ggtggaggtc tttggcacct	1980
atgtccctgg ctacctactc aagctgagcg ccattgggctg gggcttcccc atctttcttg	2040
tgacgctggg ggccctgggt gatgtggaca actatggccc catcatcttg gctgtgcata	2100
ggactccaga gggcgctcct tacccttcca tgtgtggat ccgggactcc ctggtcagct	2160
acatcaccaa cctgggcctc ttcagcctgg tgtttctgtt caacatggcc atgctagcca	2220
ccatgggtgg gcagatcctg cggctgcgcc cccacaccca aaagtggta catgtgctga	2280
cactgctggg cctcagcctg gtccttggcc tgccctgggc cttgatcttc ttctcctttg	2340
cttctggcac cttccagctt gtgtcctct accttttcag catcatcacc tcttccaag	2400
gcttctcat cttcatctgg tactgggtcca tgcggctgca ggcccggggg ggccctccc	2460
ctctgaagag caactcagac agcgccaggc tccccatcag ctggggcagc acctcgtcca	2520
gccgcatcta ggccctccagc ccacctgccc atgtgatgaa gcagagattc ggccctcgtc	2580
cacactgcct gtggcccccg agcccgggcc agccccaggc cagtcagccg cagactttgg	2640
aaagcccaac gaccatggag agatggggcc ttgccatggg ggacggactc ccgggctggg	2700
cttttgaatt ggccctgggg actactcggc tctcactcag ctcccacggg actcagaagt	2760
gcgcccgcct gctgcctagg gtactgtccc cacatctgtc ccaaccagc tggaggcctg	2820
gtctctcctt acaacccctg ggcccagccc tcattgctgg gggccaggcc ttggatcttg	2880
agggtctggc acatccttaa tcctgtgccc ctgcctggga cagaaatgtg gctccagttg	2940
ctctgtctct cgtggtcacc ctgagggcac tctgcatcct ctgtcatttt aacctcaggt	3000
ggcaccaggg gcgaatgggg ccaggggcag accttcaggg ccagagccct ggcgaggagg	3060
aggccctttg ccaggagcac agcagcagct cgcctacctc tgagcccagg cccctcctt	3120
ccctcagccc ccagtcctc cctccatctt ccctgggggt ctctctctct cccagggcct	3180
ccttgcctct tcgttcacag ctgggggtcc ccgattccaa tgctgttttt tggggagtgg	3240

ttccaggag ctgcctggtg tctgctgtaa atgtttgtct actgcacaag cctcggcctg 3300
 ccctgagcc aggcctcggtg ccgatgcgtg ggctgggcta ggccctctg tccatctggg 3360
 cttttgtatg agctgcattg cccttgctca ccctgaccaa gcacacgcct cagagggggc 3420
 ctcagcctct cctgaagccc tcttggtgga agaactgtgg accatgccag tcccgtctgg 3480
 ttccatccc accactccaa ggactgagac tgacctcctc tggtagacact ggcctagggc 3540
 ctgacactct cctaagaggt tctctccaag cccccaata gctccaggcg ccctcggccg 3600
 cccatcatgg ttaattctgt ccaacaaaca cacacgggta gattgctggc ctggtgtagg 3660
 tggtagggac acagatgacc gacctggtca ctctcctgc caacattcag tctggtatgt 3720
 gaggcgtgcg tgaagcaaga actcctggag ctacagggac agggagccat cattcctgcc 3780
 tgggaatcct ggaagacttc ctgcaggagt cagcgttcaa tcttgacctt gaagatggga 3840
 aggatgttct ttttacgtac caattctttt gtcttttgat attaaaaaga agtacatgtt 3900
 cattgtagag aatttggaag ctgtagaaga gaatcaagaa gaaaaataaa aatcagctgt 3960
 tgtaatcacc tagcaaactg gaaaaaaaaa aaaaaa 3996

<210> 42
 <211> 3821
 <212> DNA
 <213> Homo sapiens

<400> 42
 agacaggcgg agcctcacct ggggctgccc gccagcccag acaagctcag actgggtgcc 60
 tgtggccctg ggaggaggtg gaaggggagg agcaggccac acaggcacag gccggtgagg 120
 gacctgccca gacctggagg gtctcgctct gtcacacagg ctggagtgca gtggtgtgat 180
 cttggctcat cgtaacctcc acctcccggg ttcaagtgat tctcatgcct cagcctcccg 240
 agtagctggg attacagggtg gtgacttcca agagtgactc cgtcggagga aaatgactcc 300
 ccagtcgctg ctgcagacga cactgttcct gctgagtctg ctcttctggt tccaagggtgc 360
 ccacggcagg ggccacaggg aagactttcg cttctgcagc cagcgggaacc agacacacag 420
 gagcagcctc cactacaaac ccacaccaga cctgcgcata tccatcgaga actccgaaga 480
 ggccctcaca gtccatgccc ctttcctgag agcccacct gcttcccgat ctttcctga 540
 cccagggggc ctctaccact tctgcctcta ctggaaccga catgctggga gattacatct 600
 tctctatggc aagcgtgact tcttgctgag tgacaaagcc tctagcctcc tctgcttcca 660
 gcaccaggag gagagcctgg ctcaggggccc cccgctgtta gccacttctg tcacctcctg 720
 gtggagccct cagaacatca gcctgcccag tgccgcccag ttcaccttct cttccacag 780

tectccccac acggccgctc acaatgcctc ggtggacatg tgcgagctca aaagggacct	840
ccagctgctc agccagttcc tgaagcatcc ccagaaggcc tcaaggaggc cctcggtctc	900
ccccgccagc cagcagttgc agagcctgga gtcgaaactg acctctgtga gattcatggg	960
ggacatggtg tccttcgagg aggaccggat caacgccacg gtgtggaagc tccagccccac	1020
agccggcctc caggacctgc acatccactc ccggcaggag gaggagcaga gcgagatcat	1080
ggagtactcg gtgctgctgc ctggaacact ctccagagg acgaaaggcc ggagcgggga	1140
ggctgagaag agactcctcc tgggtggactt cagcagccaa gccctgttcc aggacaagaa	1200
ttccagccaa gtccctgggtg agaaggtctt ggggattgtg gtacagaaca ccaaagtagc	1260
caacctcacg gagcccgtgg tgctcacttt ccagcaccag ctacagccga agaattgtgac	1320
tctgcaatgt gtgttctggg ttgaagaccc cacattgagc agcccggggc attggagcag	1380
tgctgggtgt gagaccgtca ggagagaaac ccaaacatcc tgcttctgca accattgac	1440
ctactttgca gtgctgatgg tctcctcggt ggaggtggac gccgtgcaca agcactacct	1500
gagcctcctc tectacgtgg gctgtgtcgt ctctgccctg gcctgccttg tcaccattgc	1560
cgcctacctc tgctccagga ggaaacctcg ggactacacc atcaagggtgc acatgaacct	1620
gctgctggcc gtcttctctg tggacacgag ctctctgctc agcgagccgg tggccctgac	1680
aggctctgag gctggctgcc gagccagtgc catcttctctg cacttctccc tgctcacctg	1740
cctttctctg atgggcctcg aggggtacaa cctctaccga ctctgtgtgg aggtcttttg	1800
cacctatgtc cctggctacc tactcaagct gagcgccatg ggctggggct tccccatctt	1860
tctggtgacg ctggtggccc tgggtggatgt ggacaactat ggccccatca tcttggtctg	1920
gcataggact ccagagggcg tcatctaccc ttccatgtgc tggatccggg actccctggt	1980
cagctacatc accaacctgg gcctcttcag cctggtgttt ctgttcaaca tggccatgct	2040
agccaccatg gtggtgcaga tectgcggct gcgccccac acccaaaagt ggtcacatgt	2100
gctgacactg ctgggcctca gcctggctct tggcctgccc tgggccttga tcttcttctc	2160
ctttgcttct ggcaccttcc agcttgctgt cctctacctt ttcagcatca tcacctctt	2220
ccaaggcttc ctcatcttca tctggtactg gtccatgcgg ctgcaggccc ggggtggccc	2280
ctccccctctg aagagcaact cagacagcgc caggctcccc atcagctcgg gcagcacctc	2340
gtccagccgc atctaggcct ccagcccacc tgcccatgtg atgaagcaga gattcggcct	2400
cgctgcacac tgctgtggc ccccgagccc ggcccagccc caggccagtc agccgcagac	2460
tttggaagc ccaacgacca tggagagatg ggccgttgcc atggtggacg gactcccggg	2520

ctgggctttt gaattggcct tggggactac tcggctctca ctcagctccc acgggactca 2580
 gaagtgcgcc gccatgctgc ctaggggtact gtccccacat ctgtcccaac ccagctggag 2640
 gcctgggtctc tccttacaac ccctggggccc agccctcatt gctggggggcc aggccttgga 2700
 tcttgaggggt ctggcacatc cttaatcctg tgcccttgcc tgggacagaa atgtggctcc 2760
 agttgctctg tctctcgtgg tcaccctgag ggcactctgc atcctctgtc attttaacct 2820
 caggtggcac ccagggcgaa tggggcccag ggcagacctt cagggccaga gccctggcgg 2880
 aggagaggcc ctttgccagg agcacagcag cagctcgctt acctctgagc ccaggccccc 2940
 tcctccctc agccccccag tcctccctcc atcttccctg gggttctctt cctctcccag 3000
 ggctccttg ctcttcgtt cacagctggg ggtccccgat tccaatgctg ttttttggg 3060
 agtggtttcc aggagctgcc tgggtgtctgc tgtaaatggt tgtctactgc acaagcctcg 3120
 gcctgcccct gagccaggct cggtaaccgat gcgtgggctg ggctaggtcc ctctgtccat 3180
 ctgggccttt gtatgagctg cattgccctt gctcaccctg accaagcaca cgctcagag 3240
 gggccctcag cctctcctga agccctcttg tggcaagaac tgtggaccat gccagtcccc 3300
 tctggtttcc atcccaccac tccaaggact gagactgacc tcctctggtg aactggcct 3360
 agggcctgac actctcctaa gaggttctct ccaagcccc aaatagctcc aggcgcctc 3420
 ggccgcccac catggttaat tctgtccaac aaacacacac gggtagattg ctggcctggt 3480
 gtaggtggta gggacacaga tgaccgacct ggtcactcct cctgccaaca ttcagtctgg 3540
 tatgtgaggg gtgcgtgaag caagaactcc tggagctaca gggacaggga gccatcattc 3600
 ctgcctggga atcctggaag acttcctgca ggagtcagcg ttcaatcttg accttgaaga 3660
 tgggaaggat gttcttttta cgtaccaatt cttttgtctt ttgatattaa aaagaagtac 3720
 atgttcattg tagagaattt ggaaactgta gaagagaatc aagaagaaaa ataaaaatca 3780
 gctgttgtaa tcacctagca aactggaaaa aaaaaaaaaa a 3821

<210> 43
 <211> 4004
 <212> DNA
 <213> Homo sapiens

<400> 43
 gagaaatcca tgactcacat atatcgtccg tcatccccag tcaagctcag ggaggaggga 60
 ggagcccagc tggggcagga gaggggtgtc tccccacaa acaaaccgg tcctccctc 120
 tccgcactag ctgtctgccc tgccctgccc taggagatgg gctgggagcc tcccacgctc 180
 tccagctcac tcggcaggca gcggggacca gggctggcag gttaagcctc tgggggtgga 240

tcctgaaagg	tgggccagcc	gcctggccct	gcgtgggacc	ctccacctgg	cagcaggtag	300
ccaaacaagg	gctggacagc	aggggtctgc	tctgtcacac	aggctggagt	gcagtgggtg	360
gatcttggtc	catcgtaacc	tccacctccc	gggttcaagt	gattctcatg	cctcagcctc	420
ccgagtagct	gggattacag	gtggtgactt	ccaagagtga	ctccgtcgga	ggaaaatgac	480
tccccagtcg	ctgctgcaga	cgacactggt	cctgctgagt	ctgctcttcc	tgggtccaagg	540
tgcccacggc	agggggccaca	gggaagactt	tcgcttctgc	agccagcgga	accagacaca	600
caggagcagc	ctccactaca	aaccacacc	agacctgcgc	atctccatcg	agaactcoga	660
agaggccctc	acagtccatg	cccccttccc	tgcagccccc	cctgcttccc	gatccttccc	720
tgaccccagg	ggcctctacc	acttctgcct	ctactggaac	cgacatgctg	ggagattaca	780
tcttctctat	ggcaagcgtg	acttcttgct	gagtgacaaa	gcctctagcc	tcctctgctt	840
ccagcaccag	gaggagagcc	tggctcaggg	ccccccgctg	ttagccactt	ctgtcacctc	900
ctgggtggagc	cctcagaaca	tcagcctgcc	cagtgcgcgc	agcttcacct	tctccttcca	960
cagtccctcc	cacacggccg	ctcacaatgc	ctcgggtggac	atgtgcgagc	tcaaaagga	1020
cctccagctg	ctcagccagt	tcctgaagca	tcccagaag	gcctcaagga	ggccctcggc	1080
tgcccccgcc	agccagcagt	tgcagagcct	ggagtcgaaa	ctgacctctg	tgagattcat	1140
gggggacatg	gtgtccttcg	aggaggaccg	gatcaacgcc	acggtgtgga	agctccagcc	1200
cacagccggc	ctccaggacc	tgcacatcca	ctcccggcag	gaggaggagc	agagcgagat	1260
catggagtac	tcggtgctgc	tgcttcgaac	actcttccag	aggacgaaag	gccggagcgg	1320
ggaggctgag	aagagactcc	tcctgggtgga	cttcagcagc	caagccctgt	tccaggacaa	1380
gaattccagc	caagtccctg	gtgagaaggt	cttggggatt	gtggtacaga	acaccaaagt	1440
agccaacctc	acggagcccc	tgggtgctac	tttccagcac	cagctacagc	cgaagaatgt	1500
gactctgcaa	tgtgtgttct	gggttgaaga	ccccacattg	agcagccccg	ggcattggag	1560
cagtgtggg	tgtgagaccg	tcaggagaga	aacccaaaaca	tcctgcttct	gcaaccactt	1620
gacctacttt	gcagtgtga	tggctctctc	ggtggagggtg	gacgccgtgc	acaagcacta	1680
cctgagcctc	ctctcctacg	tgggctgtgt	cgtctctgcc	ctggcctgcc	ttgtcaccat	1740
tgcgcctac	ctctgctcca	ggaggaaacc	tcgggactac	accatcaagg	tgcacatgaa	1800
cctgtgtctg	gccgtcttcc	tgctggacac	gagcttctctg	ctcagcgagc	cggtggccct	1860
gacaggctct	gaggctggct	gccgagccag	tgccatcttc	ctgcacttct	ccctgctcac	1920
ctgcctttcc	tggatgggcc	tcgaggggta	caacctctac	cgactcgtgg	tggaggtctt	1980
tggcacctat	gtccctggct	acctactcaa	gctgagcgcc	atgggctggg	gcttccccat	2040

ctttctggtg acgctggtgg ccttgggtgga tgtggacaac tatggcccca tcatcttggc	2100
tgtgcatagg actccagagg gcgtcateta cctttccatg tgctggatcc gggactccct	2160
ggtcagctac atcaccaacc tgggcctctt cagcctggtg tttctgttca acatggccat	2220
gctagccacc atggtggtgc agatcctgcg gctgcgcccc cacacccaaa agtggtcaca	2280
tgtgctgaca ctgctggggc tcagcctggt ccttggcctg ccttgggcct tgatcttctt	2340
ctcctttgct tctggcacct tccagcttgt cgctctctac cttttcagca tcatcacctc	2400
cttccaaggc ttctcatct tcatctggta ctgggccatg cggctgcagg cccggggtgg	2460
ccctccctct ctgaagagca actcagacag cgccaggctc cccatcagct cgggcagcac	2520
ctcgtccagc cgcatttagg cctccagccc acctgcccct gtgatgaagc agagattcgg	2580
cctcgtcgca cactgcctgt ggcccccgag cccggccccag ccccaggcca gtcagccgca	2640
gactttggaa agcccaacga ccatggagag atgggcccgt gccatggtgg acggactccc	2700
gggctgggct tttgaattgg ccttggggac tactcggtc tctactcagct cccacgggac	2760
tcagaagtgc gccgccatgc tgccatagggt actgtcccca catctgtccc aaccagctg	2820
gaggcctggt ctctccttac aacccttggg cccagccctc attgctgggg gccaggcctt	2880
ggatcttgag ggtctggcac atccttaatc ctgtgcccct gcctgggaca gaaatgtggc	2940
tccagttgct ctgtctctcg tggtcaccct gagggcactc tgcattcctt gtcattttta	3000
cctcaggtgg caccagggc gaatggggcc cagggcagac cttcagggcc agagccctgg	3060
cggaggagag gccctttgcc aggagcacag cagcagctcg cctacctctg agccaggcc	3120
ccctccctcc ctccagcccc cagtcctccc tccatcttcc ctgggggttct cctcctctcc	3180
cagggcctcc ttgtccttc gttcacagct gggggctccc gattccaatg ctgttttttg	3240
gggagtgggt tccaggagct gcctggtgtc tgctgtaaat gtttgtctac tgcacaagcc	3300
tcggcctgcc cctgagccag gctcgggtacc gatgcgtggg ctgggctagg tccctctgtc	3360
catctgggccc tttgtatgag ctgcattgcc cttgctcacc ctgaccaagc acacgcctca	3420
gaggggccct cagcctctcc tgaagccctc ttgtggcaag aactgtggac catgccagtc	3480
ccgtctgggt tccatcccac cactccaagg actgagactg acctcctctg gtgacactgg	3540
cctagggcct gacactctcc taagagggtc tctccaagcc cccaaatagc tccaggcgcc	3600
ctcggccgcc catcatggtt aattctgtcc aacaaacaca cacgggtaga ttgctggcct	3660
gttgtaggtg gtagggacac agatgaccga cctggtcact cctcctgcca acattcagtc	3720
tggtatgtga ggcgtgcgtg aagcaagaac tcctggagct acagggacag ggagccatca	3780

ttcctgcctg ggaatcctgg aagacttcct gcaggagtca gcgttcaatc ttgaccttga	3840
agatgggaag gatgttcttt ttacgtacca attcttttgt cttttgatat taaaaagaag	3900
tacatgttca ttgtagagaa tttggaaact gtagaagaga atcaagaaga aaaataaaaa	3960
tcagctgttg taatcaccta gcaaactgga aaaaaaaaaa aaaa	4004

<210> 44
 <211> 4058
 <212> DNA
 <213> Homo sapiens

<400> 44	
acttgggaac aggacaagtt acggagccac gttgctttgc tgggtctgag ccggggtgtg	60
acgtagtccc tgcagctgcc aacggttgcc agggcaacgg ttgccagggg ctgctgtcac	120
ctgcgccctt tctccgcgc tggcggctgg ggcttctcag cctctattcc ctggtgtcc	180
cctttgtttg aagctccagt gagggagcag tggctggggg ggcccagctt caaagtctct	240
gtcctcttga aaaaaggtgg tcgggggaca ttgaccacc agccccgcag gctactgcct	300
gcaaacaaga acccctcatc tgccacgcac gttcttaatg tatctatagt ctgcctgatg	360
ccacaaagga gtccagggc tcgctctgtc acacaggctg gagtgcagtg gtgtgatctt	420
ggctcatcgt aacctccacc tcccgggttc aagtgattct catgcctcag cctcccaggt	480
agctgggatt acaggtggtg acttccaaga gtgactccgt cggaggaaaa tgactccca	540
gtcgtgctg cagacgacac tgttctgct gagtctgtc ttcttggtcc aagtgccca	600
cggcaggggc cacagggaag actttcgtt ctgcagccag cggaaccaga cacacaggag	660
cagcctccac taaaaacca caccagacct gcgcctctcc atcgagaact ccgaagaggc	720
cctcacagtc catgcccctt tccctgcagc ccaccctgct tcccgatcct tccctgacct	780
caggggcctc taccacttct gcctctactg gaaccgacat gctgggagat tacatcttct	840
ctatggcaag cgtgacttct tgctgagtga caaagcctct agcctcctct gcttccagca	900
ccaggaggag agcctggctc agggcccccc gctgttagcc acttctgtca cctcctggtg	960
gagccctcag aacatcagcc tgcccagtgc cgccagcttc accttctcct tccacagtcc	1020
tccccacacg gccgctcaca atgcctcggg ggacatgtgc gagctcaaaa gggacctcca	1080
gctgctcagc cagttcctga agcatcccca gaaggcctca aggaggccct cggctgcccc	1140
cgccagccag cagttgcaga gcctggagtc gaaactgacc tctgtgagat tcatggggga	1200
catggtgtcc ttcgaggagg accggatcaa cgccacggtg tggaagctcc agcccacagc	1260
cggcctccag gacctgcaca tccactcccc gcaggaggag gagcagagcg agatcatgga	1320

gtactcgggtg ctgctgcctc gaacactctt ccagaggacg aaaggccgga gcggggaggc 1380
 tgagaagaga ctccctcctg tggacttcag cagccaagcc ctgttccagg acaagaattc 1440
 cagccaagtc ctgggtgaga aggtcttggg gattgtggta cagaacacca aagtagccaa 1500
 cctcacggag cccgtgggtg tcactttcca gcaccagcta cagccgaaga atgtgactct 1560
 gcaatgtgtg ttctgggttg aagacccac attgagcagc ccggggcatt ggagcagtgc 1620
 tgggtgtgag accgtcagga gagaaacca aacatcctgc ttctgcaacc acttgacctt 1680
 ctttgacagt ctgatggctt cctcgggtga ggtggacgcc gtgcacaagc actacctgag 1740
 cctcctctcc tacgtgggct gtgtcgtctc tgccctggcc tgccctgtca ccattgccgc 1800
 ctacctctgc tccaggagga aacctcggga ctacaccatc aaggtgcaca tgaacctgct 1860
 gctggccgct ttctgctgg acacgagctt cctgctcagc gagccggtgg ccctgacagg 1920
 ctctgaggct ggctgccgag ccagtgccat cttcctgcac ttctccctgc tcacctgcct 1980
 ttcttgatg ggctcagag ggtacaacct ctaccgactc gtggtggagg tctttggcac 2040
 ctatgtccct ggctacctac tcaagctgag cgccatgggc tggggcttcc ccattcttct 2100
 ggtgacgctg gtggccctgg tggatgtgga caactatggc cccatcatct tggctgtgca 2160
 taggactcca gagggcgctc tctacccttc catgtgctgg atccgggact ccttggtcag 2220
 ctacatcacc aacctgggcc tcttcagcct ggtgtttctg ttcaacatgg ccatgctagc 2280
 caccatggtg gtgcagatcc tgcggctgcg ccccccacacc caaaagtggc cacatgtgct 2340
 gacactgctg ggctcagcc tggctccttg cctgccctgg gccttgatct tcttctcctt 2400
 tgcttctggc accttcagc ttgtcgtcct ctaccttttc agcatcatca cctccttcca 2460
 aggettcctc atcttcatct ggtactggtc catgcggctg caggcccggg gtggcccctc 2520
 cctctgaag agcaactcag acagcgccag gctcccatc agctcgggca gcacctcgtc 2580
 cagccgcata taggcctoca gccacctgc ccatgtgatg aagcagagat tcggcctcgt 2640
 cgcacactgc ctgtggcccc cgagcccggc ccagccccag gccagtcagc cgcagacttt 2700
 ggaaagccca acgaccatgg agagatgggc cgttgccatg gtggacggac tcccgggctg 2760
 ggcttttgaa ttggccttg ggactactcg gctctcactc agctcccacg ggactcagaa 2820
 gtgcgcgcgc atgctgccta ggtactgtc cccacatctg tcccaacca gctggaggcc 2880
 tggctctctc ttacaacccc tgggccagc cctcattgct gggggccagg ccttgatct 2940
 tgagggtctg gcacatcctt aatcctgtgc ccctgcctgg gacagaaatg tggctccagt 3000
 tgctctgtct ctctgtgtca ccctgagggc actctgcata ctctgtcatt ttaacctcag 3060
 gtggcaccca gggcgaatgg ggcccagggc agaccttcag ggccagagcc ctggcggagg 3120

agaggccctt tgccaggagc acagcagcag ctgcctacc tctgagccca ggccccctcc 3180
 ctccctcagc cccccagtcc tccctccatc ttccctgggg ttctcctcct ctcccagggc 3240
 ctcccttgctc ctctgttcac agctgggggt ccccgattcc aatgctgttt ttgggggagt 3300
 ggtttccagg agctgcctgg tgtctgctgt aaatgtttgt ctactgcaca agcctcggcc 3360
 tgcccctgag ccaggctcgg taccgatgcg tgggctgggc taggtccctc tgtccatctg 3420
 ggccctttgta tgagctgcat tgcccttgct caccctgacc aagcacacgc ctgagagggg 3480
 ccctcagcct ctctgaagc cctcttgctg caagaactgt ggaccatgcc agtcccgtct 3540
 ggtttccatc ccaccactcc aaggactgag actgacctcc tctggtgaca ctggcctagg 3600
 gcctgacact ctcttaagag gttctctcca agccccaaa tagctccagg cgccctcggc 3660
 cgcccatcat ggttaattct gtccaacaaa cacacacggg tagattgctg gcctgttgta 3720
 ggtggtaggg acacagatga ccgacctggt cactcctcct gccaacattc agtctggtat 3780
 gtgaggcgtg cgtgaagcaa gaactcctgg agctacaggg acaggagacc atcattcctg 3840
 cctgggaatc ctggaagact tcctgcagga gtcagcgttc aatcttgacc ttgaagatgg 3900
 gaaggatgtt ctttttacgt accaattctt ttgtcttttg atattaaaaa gaagtacatg 3960
 ttcatgttag agaatttgga aactgtagaa gagaatcaag aagaaaaata aaaatcagct 4020
 gttgtaatca cctagcaaac tggaaaaaaaa aaaaaaaaaa 4058

<210> 45
 <211> 3875
 <212> DNA
 <213> Homo sapiens

<400> 45
 gagaaatcca tgactcacat atatcgctccg tcatccccag tcaagctcag ggaggagggga 60
 ggagcccagc tggggcagga gaggggtgtc tccccaccaa acaaaccggg tccctccctc 120
 tccgcactag ctgtctgccc tgccctgccc taggagatgg gctgggagcc tcccacgctc 180
 tccagctcac tcggcaggca gcggggacca gggctggcag gtttaagcctc tgggggtgga 240
 tcctgaaagg tgggtccagcc gcctggccct gcgtgggacc ctccacctgg cagcaggtgg 300
 tgacttccaa gagtgactcc gtcggaggaa aatgactccc cagtcgctgc tgcagacgac 360
 actgttctctg ctgagtctgc tcttctctgg ccaagcctct gcctcctcag gtgcccacgg 420
 cagggggccac aggggaagact ttcgcttctg cagccagcgg aaccagacac acaggagcag 480
 cctccactac aaaccacac cagacctgcg catctccatc gagaactccg aagaggccct 540
 cacagtecat gcccctttcc ctgcagccca ccctgcttcc cgatccttcc ctgacccag 600

gggcctctac cacttctgcc tctactggaa cgcacatgct gggagattac atcttctcta	660
tggcaagcgt gacttcttgc tgagtgacaa agcctctagc ctectctgct tccagcacca	720
ggaggagagc ctggctcagg gcccccgct gttagccact tctgtcacct cctggtggag	780
ccctcagaac atcagcctgc ccagtgccgc cagcttcacc ttctccttcc acagtccctcc	840
ccacacggcc gctcacaatg cctcgggtgga catgtgcgag ctcaaaaggg acctccagct	900
gctcagccag ttctgaagc atccccagaa ggcctcaagg aggccctcgg ctgccccgcg	960
cagccagcag ttgcagagcc tggagtcgaa actgacctct gtgagattca tgggggacat	1020
ggtgtccttc gaggaggacc ggatcaacgc cacggtgtgg aagctccagc ccacagccgg	1080
cctccaggac ctgcacatcc actcccggca ggaggaggag cagagcgaga tcatggagta	1140
ctcggtgctg ctgcctcgaa cactcttcca gaggacgaaa ggccggagcg gggaggctga	1200
gaagagactc ctctgggtgg acttcagcag ccaagccctg ttccaggaca agaattccag	1260
ccaagtcttg ggtgagaagg tcttggggat tgtggtacag aacaccaaag tagccaacct	1320
cacggagccc gtggtgctca ctttcagca ccagctacag ccgaagaatg tgactctgca	1380
atgtgtgttc tgggttgaag accccacatt gagcagcccg gggcattgga gcagtgtggt	1440
gtgtgagacc gtcaggagag aaacccaaac atcctgcttc tgcaaccact tgacctactt	1500
tgcagtgtg atggtctcct cggtggaggt ggacgccgtg cacaagcact acctgagcct	1560
cctctcttac gtgggctgtg tcgtctctgc cctggcctgc cttgtcacca ttgccgcta	1620
cctctgctcc aggaggaaac ctcgggacta caccatcaag gtgcacatga acctgctgct	1680
ggccgtcttc ctgctggaca cgagcttctt gctcagcgag ccggtggccc tgacaggctc	1740
tgaggctggc tgccagacca gtgccatctt cctgcacttc tcctgtctca cctgccttcc	1800
ctggatgggc ctcgaggggt acaacctcta ccgactcgtg gtggaggtct ttggcaccta	1860
tgtccctggc tacctactca agctgagcgc catgggctgg ggcttcccca tctttctggt	1920
gacgtggtg gccctgggtg atgtggacaa ctatggcccc atcatcttggt ctgtgcatag	1980
gactccagag ggcgtcatct acccttccat gtgctggatc cgggactccc tggtcagcta	2040
catcaccaac ctgggcctct tcagcctggt gtttctgttc aacatggcca tgctagccac	2100
catggtggtg cagatcctgc ggctgcgccc ccacacccaa aagtggtcac atgtgctgac	2160
actgctgggc ctcagcctgg tccttggcct gccctgggccc ttgatcttct tctcctttgc	2220
ttctggcacc ttccagcttg tcgtcctcta ctttttcagc atcatcacct ctttccaagg	2280
cttctcatc ttcatctggt actggtccat gcggctgcag gcccggggtg gccctcccc	2340

tctgaagagc aactcagaca ggcgcaggct ccccatcagc tcgggcagca cctcgtccag 2400
ccgcatctag gcctccagcc cacctgccca tgtgatgaag cagagattcg gcctcgtcgc 2460
aactgcctg tggcccccca gcccgcccc gcccaggcc agtcagccgc agactttgga 2520
aagcccaacg accatggaga gatgggccgt tgccatggtg gacggactcc cgggctgggc 2580
ttttgaattg gccttgggga ctactcggct ctcaactcagc tcccacggga ctcagaagtg 2640
cgccgccatg ctgcctaggg tactgtcccc acatctgtcc caaccagct ggaggcctgg 2700
tctctcctta caacccttgg gccagccct cattgctggg gccaggcct tggatcttga 2760
gggtctggca catccttaat cctgtgcccc tgccctgggac agaaatgtgg ctccagttgc 2820
tctgtctctc gtggtcacc tgagggcact ctgcatcctc tgtcatttta acctcaggtg 2880
gcacccaggg cgaatggggc ccagggcaga ccttcagggc cagagccctg gcggaggaga 2940
ggccctttgc caggagcaca gcagcagctc gcctacctct gagcccaggc cccctccctc 3000
cctcagcccc ccagtcctcc ctccatcttc cctgggggttc tctcctctc ccagggcctc 3060
cttgcctcctt cgttcacagc tgggggtccc cgattccaat gctgtttttt ggggagtggg 3120
ttccaggagc tgccctggtg ctgctgtaaa tgtttgtcta ctgcacaagc ctcggcctgc 3180
ccctgagcca ggctcgttac cgatgcgtgg gctgggctag gtccctctgt ccatctgggc 3240
ctttgtatga gctgcattgc ccttgctcac cctgaccaag cacacgcctc agaggggccc 3300
tcagcctctc ctgaagccct cttgtggcaa gaactgtgga ccatgccagt cccgtctggt 3360
ttccatccca ccactccaag gactgagact gacctcctct ggtgacactg gcctagggcc 3420
tgacactctc ctaagagggt ctctccaagc ccccaaatag ctccaggcgc cctcggccgc 3480
ccatcatggt taattctgtc caacaaacac acacgggtag attgctggcc tgttgtaggt 3540
ggtagggaca cagatgaccg acctggtcac tctcctgccc aacattcagt ctggtatgtg 3600
aggcgtgcgt gaagcaagaa ctctggagc tacagggaca gggagccatc attcctgcct 3660
gggaatcctg gaagacttcc tgcaggagtc agcgttcaat cttgacctg aagatgggaa 3720
ggatgttctt ttacgtacc aattcttttg tcttttgata ttaaaaagaa gtacatgttc 3780
attgtagaga atttggaaac tgtagaagag aatcaagaag aaaaataaaa atcagctgtt 3840
gtaatcacct agcaaactgg aaaaaaaaaa aaaaa 3875

<210> 46

<211> 2655

<212> DNA

<213> Homo sapiens

<400> 46

cccagaaggc cgcggggggt ggaccgccta agagggcggtg cgctcccgac atgccccgcg	60
gcgcgccatt aaccgccaga tttgaatcgc gggacccgtt ggcagagggtg gcggcggcgg	120
catgggtgcc ccgacgttgc cccctgcctg gcagcccttt ctcaaggacc accgcatctc	180
tacattcaag aactggccct tcttgagggtg ctgcgcctgc accccggagc ggatggccga	240
ggctggcttc atccactgcc ccactgagaa cgagccagac ttggcccagt gtttcttctg	300
cttcaaggag ctggaaggct gggagccaga tgacgacccc atagaggaac ataaaaagca	360
ttcgccgggt tgcgctttcc tttctgtcaa gaagcagttt gaagaattaa cccttggtga	420
atTTTTGAAA ctggacagag aaagagccaa gaacaaaatt gcaaaggaaa ccaacaataa	480
gaagaaagaa tttgaggaaa ctgcggagaa agtgcgccgt gccatcgagc agctggctgc	540
catggattga ggcctctggc cggagctgcc tggctccaga gtggctgcac cacttccagg	600
gtttattccc tggtgccacc agccttctg tgggcccctt agcaatgtct taggaaagga	660
gatcaacatt ttcaaattag atgtttcaac tgtgctcttg ttttgtcttg aaagtggcac	720
cagagggtgct tctgcctgtg cagcgggtgc tgctggtaac agtggctgct tctctctctc	780
tctctctttt ttgggggctc atttttgctg ttttgattcc cgggcttacc aggtgagaag	840
tgagggagga agaaggcagt gtcccttttg ctagagctga cagctttggt cgcgtgggca	900
gagccttcca cagtgaatgt gtctggacct catgttggtg aggctgtcac agtcctgagt	960
gtggacttgg caggtgcctg ttgaatctga gctgcagggt ccttatctgt cacacctgtg	1020
cctcctcaga ggacagtttt tttgttggtg tgtttttttg tttttttttt ttttggtagat	1080
gcatgacttg tgtgtgatga gagaatggag acagagtccc tggctcctct actgtttaac	1140
aacatggctt tcttattttg tttgaattgt taattcacag aatagcacia actacaatta	1200
aaactaagca caaagccatt ctaagtcatt ggggaaacgg ggtgaacttc aggtggatga	1260
ggagacagaa tagagtgata ggaagcgtct ggcagatact ccttttgcca ctgctgtgtg	1320
attagacagg ccagtgagc cgcggggcac atgctggccg ctccctccctc agaaaaaggc	1380
agtggcctaa atccttttta aatgacttgg ctcgatgctg tgggggactg gctgggctgc	1440
tgcaggccgt gtgtctgtca gcccaacctt cacatctgtc acgttctcca cacgggggag	1500
agacgcagtc cgcccaggtc cccgctttct ttggaggcag cagctccgc agggctgaag	1560
tctggcgtaa gatgatgat ttgattcgcc ctccctccctg tcatagagct gcagggtgga	1620
ttgttacagc ttcgctggaa acctctggag gtcattctcg ctgttccctga gaaataaaaa	1680
gcctgtcatt tcaaactctg ctgtggaccc tactgggttt ttaaaatatt gtcagttttt	1740
catcgtcgtc cctagcctgc caacagccat ctgccagac agccgcagtg aggatgagcg	1800

```

tcttggcaga gacgcagttg tctctgggcg cttgccagag ccacgaaccc cagacctgtt 1860
tgtatcatcc gggctccttc cgggcagaaa caactgaaaa tgcacttcag acccacttat 1920
ttctgccaca tctgagtcgg cctgagatag acttttccct ctaaactggg agaatatcac 1980
agtgggtttt gttagcagaa aatgcactcc agcctctgta ctcatctaag ctgcttattt 2040
ttgatatttg tgtcagtctg taaatggata cttcacttta ataactgttg cttagtaatt 2100
ggctttgtag agaagctgga aaaaaatggg tttgtcttca actcctttgc atgccaggcg 2160
gtgatgtgga tctcggcttc tgtgagcctg tgctgtgggc agggctgagc tggagccgcc 2220
cctctcagcc cgctgccac ggcttttccct taaaggccat ccttaaaacc agaccctcat 2280
ggctaccagc acctgaaagc ttctctgaca tctgttaata aagccgtagg cccttgtcta 2340
agtgaaccg cctagacttt ctttcagata catgtccaca tgtccatttt tcaggttctc 2400
taagttggag tggagtctgg gaagggttgt gaatgaggct tctgggctat gggtgagggt 2460
ccaatggcag gttagagccc ctggggccaa ctgccatcct ggaaagtaga gacagcagtg 2520
cccgtgccc agaagagacc agcaagccaa actggagccc ccattgcagg ctgtcgccat 2580
gtggaaagag taactcacia ttgccaataa agtctcatgt ggttttatct aaaaaaaaaa 2640
aaaaaaaaaa aaaaaa 2655

```

```

<210> 47
<211> 2537
<212> DNA
<213> Homo sapiens

```

```

<400> 47
cccagaaggc cgcggggggt ggaccgccta agagggcggt cgctcccgac atgccccgcg 60
gcgcgccatt aaccgccaga tttgaatcgc gggaccggtt ggcagagggt gcggcgggcg 120
catgggtgcc ccgacgttgc cccctgcctg gcagcccttt ctcaaggacc accgcatctc 180
tacattcaag aactggccct tcttggaggg ctgcgcctgc accccggagc ggatggccga 240
ggctggcttc atccactgcc cactgagaa cgagccagac ttggcccagt gtttcttctg 300
cttcaaggag ctggaagggt gggagccaga tgacgacccc atgcaaagga aaccaacaat 360
aagaagaaag aatttgagga aactgcggag aaagtgcgcc gtgccatcga gcagctggct 420
gccatggatt gaggcctctg gccggagctg cctgggccca gagtggctgc accacttcca 480
gggtttattc cctgggtgcc ccagccttcc tgtgggcccc ttagcaatgt cttaggaaag 540
gagatcaaca ttttcaaatt agatgtttca actgtgctct tgttttgtct tgaaagtggc 600
accagagggt cttctgcctg tgcagcgggt gctgctggta acagtggctg cttctctctc 660

```

tctctctctt ttttgggggc tcatttttgc tgttttgatt cccgggctta ccaggtgaga	720
agtgaggag gaagaaggca gtgtcccttt tgctagagct gacagctttg ttcgcgtggg	780
cagagccttc cacagtgaat gtgtctggac ctcatgttgt tgaggctgtc acagtcctga	840
gtgtggactt ggcaggtgcc tgttgaatct gagctgcagg ttccttatct gtcacacctg	900
tgccctctca gaggacagtt tttttgttgt tgtgtttttt tgtttttttt tttttggtag	960
atgcatgact tgtgtgtgat gagagaatgg agacagagtc cctggctcct ctactgttta	1020
acaacatggc tttcttattt tgtttgaatt gttaattcac agaatagcac aaactacaat	1080
taaaactaag cacaaagcca ttctaagtca ttggggaaac ggggtgaact tcaggtggat	1140
gaggagacag aatagagtga taggaagcgt ctggcagata ctctttttgc cactgctgtg	1200
tgattagaca ggcccagtga gccgcggggc acatgctggc cgctcctccc tcagaaaaag	1260
gcagtggcct aaatcctttt taaatgactt ggctcgatgc tgtgggggac tggctgggct	1320
gctgcaggcc gtgtgtctgt cageccaacc ttcacatctg tcacgttctc cacacggggg	1380
agagacgcag tccgccagg tccccgcttt ctttgagggc agcagctccc gcagggctga	1440
agtctggcgt aagatgatgg atttgattcg ccctcctccc tgtcatagag ctgcagggtg	1500
gattgttaca gcttcgctgg aaacctctgg aggtcatctc ggctgttcct gagaaataaa	1560
aagcctgtca tttcaaacac tgcgtgggac cctactgggt ttttaaataa ttgtcagttt	1620
ttcatcgctg tccctagcct gccaacagcc atctgccag acagccgcag tgaggatgag	1680
cgctctggca gagacgcagt tgtctctggg cgcttgccag agccacgaac ccagacctg	1740
tttgtatcat ccgggctcct tccgggcaga aacaactgaa aatgcacttc agaccactt	1800
atttctgcca catctgagtc ggctgagat agacttttcc ctctaaactg ggagaatate	1860
acagtggttt ttgttagcag aaaatgcact ccagcctctg tactcatcta agctgcttat	1920
ttttgatatt tgtgtcagtc tgtaaatgga tacttcactt taataactgt tgcttagtaa	1980
ttggctttgt agagaagctg gaaaaaatg gttttgtctt caactccttt gcatgccagg	2040
cggtgatgtg gatctcggct tctgtgagcc tgtgctgtgg gcagggctga gctggagccg	2100
ccctctcag ccgcctgcc acggcctttc cttaaaggcc atccttaaaa ccagaccctc	2160
atggctacca gcacctgaaa gcttcctcga catctgttaa taaagccgta ggcccttgct	2220
taagtgaac cgcctagact ttctttcaga tacatgtcca catgtccatt tttcaggttc	2280
tctaagttgg agtggagtct ggggaagggt gtgaatgagg cttctgggct atgggtgagg	2340
ttccaatggc aggttagagc ccctcgggcc aactgccatc ctggaaagta gagacagcag	2400

tgcccgctgc ccagaagaga ccagcaagcc aaactggagc cccattgca ggctgtcgcc 2460
 atgtggaaag agtaactcac aattgccaat aaagtctcat gtggttttat ctaaaaaaaaa 2520
 aaaaaaaaaa aaaaaaa , 2537

<210> 48
 <211> 2724
 <212> DNA
 <213> Homo sapiens

<400> 48
 ccagaaggc cgcggggggt ggaccgccta agagggcgtg cgctcccgac atgccccgcg 60
 gcgcgccatt aaccgccaga tttgaatcgc gggaccctgt ggcagaggtg gcggcgccgg 120
 catgggtgcc ccgacgttgc ccctgcctg gcagcccttt ctcaaggacc accgcattctc 180
 tacattcaag aactggccct tcttggaggg ctgcgcctgc accccggagc ggatggccga 240
 ggctggcttc atccactgcc ccactgagaa cgagccagac ttggcccagt gtttcttctg 300
 cttcaaggag ctggaaggct gggagccaga tgacgacccc attgggccgg gcacggtggc 360
 ttacgcctgt aataccagca ctttgggagg ccgaggcggg cggatcacga gagaggaaca 420
 taaaaagcat tcgtccggtt gcgctttcct ttctgtcaag aagcagtttg aagaattaac 480
 ccttggtgaa tttttgaaac tggacagaga aagagccaag aacaaaattg caaaggaaac 540
 caacaataag aagaaagaat ttgaggaaac tgccggagaaa gtgcgcctgt ccatcgagca 600
 gctggctgcc atggattgag gcctctggcc ggagctgcct ggtcccagag tggctgcacc 660
 acttccaggg tttattccct ggtgccacca gccttctgt gggcccctta gcaatgtctt 720
 aggaaaggag atcaacattt tcaaattaga tgtttcaact gtgctcttgt tttgtcttga 780
 aagtggcacc agaggtgctt ctgcctgtgc agcgggtgct gctggtaaca gtggctgctt 840
 ctctctctct ctctcttttt tgggggctca tttttgctgt tttgattccc gggttacca 900
 ggtgagaagt gagggaggaa gaaggcagtg tcccttttgc tagagctgac agctttgttc 960
 gcgtgggcag agccttcac agtgaatgtg tctggacctc atgttggtga ggctgtcaca 1020
 gtctgagtgc tggacttggc aggtgcctgt tgaatctgag ctgcaggttc cttatctgtc 1080
 acacctgtgc ctctcagag gacagttttt ttgttgttgt gtttttttgt tttttttttt 1140
 ttggtagatg catgacttgt gtgtgatgag agaattggaga cagagtcctt ggctcctcta 1200
 ctgtttaaca acatggcttt cttattttgt ttgaattgtt aattcacaga atagcacaaa 1260
 ctacaattaa aactaagcac aaagccattc taagtcattg gggaaacggg gtgaacttca 1320
 ggtggatgag gagacagaat agagtgatag gaagcgtctg gcagatactc cttttgccac 1380

tgctgtgtga ttagacaggc ccagttagcc gcggggcaca tgctggccgc tcctccctca	1440
gaaaaaggca gtggcctaaa tccttttttaa atgacttggc tcgatgtgtg gggggactgg	1500
ctgggctgct gcaggccgtg tgtctgtcag cccaaccttc acatctgtca cgttctccac	1560
acgggggaga gacgcagtcc gcccagggtcc ccgctttctt tggaggcagc agctcccga	1620
gggctgaagt ctggcgtaag atgatggatt tgattcgccc tcctccctgt catagagctg	1680
cagggtggat tgttacagct tcgctggaaa cctctggagg tcatctcggc tgttctgag	1740
aaataaaaag cctgtcattt caaacactgc tgtggaccct actgggtttt taaaatattg	1800
tcagtttttc atcgctgtcc ctagcctgcc aacagccatc tgcccagaca gccgcagtga	1860
ggatgagcgt cctggcagag acgcagttgt ctctgggcgc ttgccagagc cacgaacccc	1920
agacctgttt gtatcatccg ggctccttcc gggcagaaac aactgaaaat gcacttcaga	1980
cccacttatt tctgccacat ctgagtcggc ctgagataga cttttccctc taaactggga	2040
gaatatcaca gtgggtttttg ttagcagaaa atgcactcca gcctctgtac tcatctaagc	2100
tgtttatttt tgatatttgt gtcagtctgt aaatggatac ttacttttaa taactgttgc	2160
ttagtaattg gctttgtaga gaagctggaa aaaaatgggt ttgtcttcaa ctcttttgca	2220
tgccaggcgg tgatgtggat ctcggtctct gtgagcctgt gctgtgggca gggctgagct	2280
ggagccgccc ctctcagccc gcctgccacg gcctttcctt aaaggccatc cttaaaacca	2340
gacctcatg gctaccagca cctgaaagct tcctcgacat ctgttaataa agccgtaggc	2400
ccttgtctaa gtgcaaccgc ctagactttc tttcagatac atgtccacat gtccattttt	2460
caggttctct aagttggagt ggagtctggg aagggttgtg aatgaggctt ctgggctatg	2520
ggtgaggttc caatggcagg ttagagcccc tcgggccaac tgccatcctg gaaagtagag	2580
acagcagtgc ccgtgcccga gaagagacca gcaagccaaa ctggagcccc cattgcaggc	2640
tgctgccatg tggaaagagt aactcacaat tgccaataaa gtctcatgtg gttttatcta	2700
aaaaaaaaaa aaaaaaaaaa aaaa	2724

<210> 49

<211> 637

<212> DNA

<213> Homo sapiens

<400> 49

gcgtgaccag cggcgggtca cgtgacgcgg tgcctggcgc cgagcctccc aagatggcgg 60

tgtgcatcgc ggtgattgcc aaggagaatt acccctcta cattcgcagc acccctacgg 120

agaacgagct gaagttccac tacatggtgc acacatctct ggacgtggtg gatgagaaga 180

tctccgcaat	ggggaaggcc	ctggtcgacc	agaggagact	gtacctgggc	ctgctctacc	240
ccacggagga	ctacaaggta	tacggctacg	tcaccaactc	caaggtgaag	tttgtcatgg	300
tggtagattc	ctccaacaca	gcccttcgag	acaacgaaat	tcgcagcatg	ttccggaagc	360
tacacaactc	ctacacagac	gtgatgtgca	accccttcta	caaccggggg	gaccgcatcc	420
agtccagcag	ggcctttgat	aacatggtga	cgtcgatgat	gatacaggtg	tgctgagtga	480
gctgtgctgc	cagccatcgc	agaggagccc	gcgcacgact	gtggtggggc	cgtcgggtctg	540
ttctggttgc	ctcttcctga	atgggacgcc	tggggctttc	agggcaggca	gctgtgcatg	600
ttctctcaac	taaaggtctt	gtgagaggaa	aaaaaaaa			637

<210> 50

<211> 2838

<212> DNA

<213> Homo sapiens

<400> 50

ggaagtgccg	aatggggacc	aagatggcgg	accttgattc	gcctccgaag	ctgtcagggg	60
tgcagcagcc	gtctgagggg	gtgggaggtg	gccgctgctc	cgaaatctcc	gctgagctca	120
ttcgctccct	gacagagctg	caggagctgg	aggctgtata	cgaacggctc	tgccggcagg	180
agaaagtggg	ggagagagag	ctggatgctc	ttttggaaca	gcaaacacc	attgaaagta	240
agatggtcac	tctccaccga	atgggtccta	atctgcagct	gattgagggg	gatgcaaagc	300
agctggctgg	aatgatcacc	tttacctgca	acctggctga	gaatgtgtcc	agcaaagtcc	360
gtcagcttga	cctggccaag	aaccgcctct	atcaggccat	tcagagagct	gatgacatct	420
tggacctgaa	gttctgcatg	gatggagtcc	agactgcttt	gaggagtga	gattatgagc	480
aggctgcagc	acatactcat	cgctacttgt	gcctggacaa	gtcggtcatt	gagctcagcc	540
gacagggcaa	agaggggagc	atgattgatg	ccaacctgaa	attgctgcag	gaagctgagc	600
aacgtctcaa	agccattgtg	gcagagaagt	ttgccattgc	caccaaggaa	ggtgatctgc	660
cccaggtgga	gcgcttcttc	aagatcttcc	cactgctggg	tttgcattag	gagggattaa	720
gaaagtcttc	ggagtacctt	tgcaagcagg	tggccagtaa	agctgaggag	aatctgctca	780
tggtgctggg	gacagacatg	agtgatcgga	gagctgcagt	catctttgca	gatacactta	840
ctcttctgtt	tgaagggatt	gcccgcattg	tggagaccca	ccagccaata	gtggagacct	900
attatgggcc	aggagagactc	tataccctga	tcaaatatct	gcaggtggaa	tgtgacagac	960
aggtggagaa	ggtggtagac	aagttcatca	agcaaaggga	ctaccaccag	cagttccggc	1020
atgttcagaa	caacctgatg	agaaattcta	caacagaaaa	aatcgaacca	agagaactgg	1080

accccatcct gactgaggtc accctgatga atgcccgcag tgagctatac ttacgcttcc	1140
tcaagaagag gattagctct gattttgagg tgggagactc catggcctca gaggaagtaa	1200
agcaagagca ccagaagtgt ctggacaaac tcctcaataa ctgccttttg agctgtacca	1260
tgcaggagct aattggctta tatgttacca tggaggagta cttcatgagg gagactgtca	1320
ataaggctgt ggctctggac acctatgaga agggccagct gacatccagc atggtggatg	1380
atgtcttcta cattgttaag aagtgcattg ggcgggctct gtccagctcc agcattgact	1440
gtctctgtgc catgatcaac ctgcccacca cagagctgga gtctgacttc agggatgttc	1500
tgtgtaataa gctgcggatg ggctttcctg ccaccacctt ccaggacatc cagcgcgggg	1560
tgacaagtgc cgtgaacatc atgcacagca gcctccagca aggcaaattt gacacaaaag	1620
gcacgcagag tactgacgag gcgaagatgt ccttctcgtt gactctgaac aacgtggaag	1680
tctgcagtga aaacatctcc actctgaaga agacactgga gagtgactgc accaagctct	1740
tcagccaggg cattggaggg gagcaggccc aggccaaagt tgacagctgc ctttctgact	1800
tggccgccgt gtccaacaaa ttccgagacc tcttgacagga agggctgacg gagctcaaca	1860
gcacagccat caagccacag gtgcagcctt ggatcaacag ctttttctcc gtctcccaca	1920
acatcgagga ggaagaattc aatgactatg aggccaacga cccttgggta caacagttca	1980
tccttaacct ggagcagcaa atggcagagt tcaaggccag cctgtccccg gtcactctacg	2040
acagcctaac cggcctcatg actagccttg ttgccgtoga gttggagaaa gtggtgctga	2100
aatccacctt taaccggctg ggtggtctgc agtttgacaa ggagctgagg tcgctcattg	2160
cctaccttac cacggtgacc acctggacca tccgagacaa gtttgcccgg ctctcccaga	2220
tggccaccat cctcaatctg gagcgggtga ccgagatcct cgattactgg ggaccaatt	2280
ccggcccatt gacgtggcgc ctaccccctg ctgaagtgcg ccagggtgctg gccctgcgga	2340
tagacttccg cagtgaagat atcaagagggc tgcgcctgta gctgcctgga tgagcacacc	2400
tggctcatca cacttgagg cctgttcctt aaggggcccc agccaaggag ctgagcgagg	2460
ctgtctggct tgggggagat ctgacagccc agacctttct acggctggca gcagagaaac	2520
aaagtctgga ccactccat gctctgccct cagacctggc caggatgatgc tctgggggca	2580
gcctctcccc accgagagaa gcgggctcct aatgaggtgg gaaagccacg gcaggcagcg	2640
agcagcccag gccagctttc tgcattggatg gtcagtctct tgcctcaaaa cactacagca	2700
aacaagctac ccctgccagt cctagacaac ttgggtacat ctggggacct agcagttagg	2760
cttgactttg aggagaggct gtgatgttta tgatccctga ataaagctac tccttgagga	2820
gaaaaaaaaa aaaaaaaa	2838

<210> 51
 <211> 1978
 <212> DNA
 <213> Homo sapiens

<400> 51
 cgctctcagc gcgtgacgca gcacgctttg atataaatgc agaccgcgcg gccgtagctt 60
 cctctctgct ctcgcggccg actcgcaaga tggcgccgca gaaagacagg aagcccaaga 120
 ggtcaacctg gaggtttaat ttggacctta ctcattcagt agaagatgga atttttgatt 180
 ctggaaaattt tgagcaattt ctacgggaga aggttaaagt caatggcaaa actggaaatc 240
 tcgggaatgt tgttcacatt gaacgcttca agaataaaat cacagttggt tctgagaaac 300
 agttctctaa aaggtatttg aaatacctta ccaagaaata ccttaagaag aacaatcttc 360
 gtgattggct tcgagtgggt gcatctgaca aggagacctt cgaacttcgt tacttcaga 420
 ttagtcaaga tgaagatgaa tcagagtcgg aggactaggt aaaggctccc cttacagggc 480
 tttgcttatt aataaaaata atgaagtata catgagaaat accaagaaat tggcttttag 540
 tttatcagtg aataaaaaat attatactct tgaacttttg tctcattttt ttgagtatgc 600
 tgtttatatg attttgattt ccctctgata actatcaaca gtattttaa atgcttatagc 660
 tggataaatt ttttccacg atttccaaaa tcttttatgt actcaggtaa aagtagcggt 720
 atataggaaa tctttttttt agacactctc gttctgtcac ccaggctgga gtgcagtgac 780
 tcagcttctt aaatagctgg aattacaggt gtgagccacc atgcccggt aattttttgt 840
 acttttagta gagtaggggt tggccatggt ggccaggctg gtttcaaact cctgacctca 900
 agtgatctac ccacctcggt tccccaaagt gctgattata gctgtgaacc accatgcccg 960
 gccaggaaat cttactgtag aacaattttt tatatagctg tataaaatgt atatgattgt 1020
 cttgacagtc tcaaatactg tttttaatag cttgtaaatg taatctcaag tgcttagaac 1080
 agttcttaca tataagttgc tctgtagttt gctcttatag ttagcccaaa gactctgggt 1140
 gtgaggcctg ctgtaaacca atgttaaact gcttattaga aagccctaac cacctgcttt 1200
 gtaggcacca gaaactcaaa accaaatctc aactcagcta cagaatctac tgtggtcctt 1260
 gtctgaaaaa attagttcac tcggttgga tcttgtctca gagcatctc atctctttct 1320
 caaaagcccc taccccaaca ccggcgtggt gggtgtctat tgaaacttac aagtggatgg 1380
 accctttctc ccgaataaac tggcctttga aagctcta atcgaaatggt tggcaaaatc 1440
 catactgcag gagattaggg aggacaagaa tgatgtgcct tttgtactg ctgagcctga 1500
 tgggtggtgcc actacttcag gtacttagat gagtcttgat gctaatagaa ttgtgtcgcc 1560

aaacatatct ggacagttac aacctaactct atgcattaat tggtttggga attgcttgaa 1620
 attattgttt aattcaatgt tttaattcgt tttcctaaaa atttaagtgc ccccatcatc 1680
 gtgcaatacc tcagtgcagc aactccttga ttcttggatg actgaacttc ctaacttggc 1740
 tctgccccat tgttccatt tttcatgttt ttcacaaata gttaaccagg tacctactac 1800
 tgtgcaccgc tgcagagcat tgaggatgta tgtgatgagt aaaaacaccc agcctgctct 1860
 gctgtgttag tattatgacg gaaactgatc aaatcacatg tgaacaaatt tactgctaca 1920
 aaagggaggg cttaataaaa ggaatttcat ctgggaaggc aaaaaaaaaa aaaaaaaaaa 1978

<210> 52
 <211> 17821
 <212> DNA
 <213> Homo sapiens

<400> 52
 cacgctcccc tcgactgcgc tccagcctgg ggcgcgcccg gccgcgcccg ccttcgctgc 60
 cgccacgggc ccgtcttctt cctccttcgg ctcccaggat gaagaaactg agtctcagag 120
 aggtgaagtg acttgcccaa gatcacagca attatcactt ctccctgggc tcccaggccc 180
 tctgcagca gccccgcct gggccatgtc ttcctcagat gaagagacgc tcagtgagcg 240
 gtcattgtcg agtgagcggc cttgtcggag tgagcgatct tacaggagcg agcggtcggg 300
 gagcctgtct ccctgtcccc caggggacac cttgccctgg aacctgccac tgcattgagca 360
 gaaaaagcgg aaaagccagg attcgggtgt ggaccctgca gagcgtgctg tggtcagagt 420
 cgctgatgaa cgggaccggg ttcagaagaa aacgttcacc aagtgggtca acaagcactt 480
 aatgaaggtc cgcaagcaca tcaatgatct ttatgaagat ctgcgggatg gccataacct 540
 gatctctctg ttggagggtc tctcaggcat caaactgccc cgggagaagg gcaggatgcg 600
 ttttcatagg ctgcagaatg tgcagattgc cctggacttc ctaaagcagc gacagggtgaa 660
 actagtgaat attcgcaatg atgacatcac agatggcaac cccaagttga ccctgggtct 720
 gatctggacc attatcttgc atttccagat ctctgacatc tacattagtg gagaatcagg 780
 ggatatgtca gccaaaggaga aactactcct gtggacccag aaggtgacag ctggttacac 840
 aggaatcaaa tgcaccaact tttcctcctg ctggagtgat gggaagatgt tcaatgcact 900
 cattcaccga taccgaccgc atctagtaga catggagagg gtgcaaatec aaagtaaccg 960
 agagaatctg gaacaggctt ttgaagtggc agaaagactg ggggtcactc gcctgctgga 1020
 tgcagaagat gtggatgtgc catctccaga tgaaaagtct gtaatcactt atgtgtcttc 1080
 gatttatgat gccttcccta aagttcctga ggggtggagaa gggatcagtg ctacggaagt 1140

ggactccagg tggcaagaat accaaagccg agtggactcc ctcattccct ggatcaaaca	1200
gcatacaata ctgatgtcag ataaaacttt tccccaaaac cctggtgaac taaaggcact	1260
ttataaccaa tatatacact tcaaagaaac agaaattctg gccaaaggaga gagaaaaagg	1320
aagaattgag gaattatata aattactaga ggtgtggatt gaatttggcc gaattaaact	1380
gcctcaaggt tatcaccta atgatgtgga agaagagtgg ggaaagctca tcatagagat	1440
gctggaacga gagaaatcac ttcggccggc tgtggagagg ctggaattgc tgctacagat	1500
tgcaaacaaa atccagaatg gtgctttgaa ctgtgaagaa aaactgacac tagctaagaa	1560
tacactgcag gctgatgctg ctcacctgga atcaggacaa ccggtacaat gtgagtcaga	1620
tgtcattatg tacattcagg agtgtgaagg tctcatcagg cagctgcagg tggatctcca	1680
gatcctgcgg gatgagaatt actaccagct agaagagctg gcttttaggg tcatgcgtct	1740
tcaggatgag ctggtcacct tgcgtctaga gtgtacaaac ctgtaccgga agggtcattt	1800
cacttcactt gaattgggtc caccctctac tttaaccacc actcatctga aagcagaacc	1860
cttaaccaag gcaaccatt cttcttctac ctctgggttc cgaaagccta tgactcgggc	1920
tgaacttggtg gccatcagct cctctgaaga tgaaggcaat ctccgatttg tgtatgaact	1980
actgtcttgg gtagaagaga tgcagatgaa actggagcga gcagagtggg gcaatgacct	2040
gcctagtgtg gagttgcagc tagaaacaca gcagcacatc catacgagtg tagaagagct	2100
gggctcaagt gtcaaggagg ccaggttgta tgagggaaag atgtcccaga atttccatac	2160
cagctatgct gaaactcttg gaaagctgga gacacagtat tgtaaattga aggaaacttc	2220
tagcttccgg atgaggcacc ttcagagcct gcataaattt gttccagag ctacagctga	2280
gttgatctgg ttgaatgaga aggaggagga ggaactagca tatgactgga gtgacaacaa	2340
ttccaatata tcagccaaga gaaattactt ctctgagttg acaatggaac tggaggagaa	2400
acaggatgtg tttcgttctc tacaagatac agcagaacta ctttacttg agaaccaccc	2460
agccaagcag acagtggagg cttacagtgc tgctgtccag tcccagttgc agtggatgaa	2520
gcagctgtgc ctgtgtgttg agcagcatgt gaaagagaat actgcttatt ttcagttctt	2580
cagtgatgca cgagagctgg agtcattctt gaggaacctc caagattcca ttaaacgaaa	2640
atattcctgt gaccacaaca ccagcttata ccgccttgaa gacctgctcc aggactccat	2700
ggatgaaaag gagcagctta tacagtccaa gagttccgtt gccagtctcg ttgggagatc	2760
aaaaaccatc gttcagctaa aaccacgcag tccagacat gtgttaaaga acaccatttc	2820
tgtcaaggct gtctgtgact acaggcagat cgagattact atttgcaaaa atgatgaatg	2880

tgtgctagaa gataattctc agcggaccaaa atggaaagtg atcagcccca cagggaaacga	2940
ggcaatggtg ccgtcagtct gcttcctcat cccccacccc aataaggatg ccattgagat	3000
ggccagcagg gtcgaacaat cttatcagaa ggttatggcc ctttggcatc agctgcatgt	3060
taacacccaaa agccttatct cttggaacta tctgcgtaaa gaccttgacc ttgtacagac	3120
ctggaaccta gaaaagcttc gatcctcagc accaggggag tgccatcaga ttatgaagaa	3180
ccttcaggcc cactatgaag actttctgca ggatagtcgt gactctgtgc tgttctcagt	3240
ggctgatcgc ttgcgcttgg aagaggaggt ggaagcttgt aaagcccgtc tccagcacct	3300
gatgaagtcc atggagaatg aggacaaaga ggagactgtg gccaagatgt acatttcaga	3360
gttgaagaac atccggctac gcctggagga gtatgaacag aggggtgtca aacgaattca	3420
gtctctagcc agctctagga ctgacagaga tgccctggcag gacaatgcat taaggattgc	3480
agagcaagag cacaccagg aggatttaca gcaattgagg tcagacttgg atgcagtttc	3540
tatgaaatgt gacagcttcc tccatcagtc tccatctagt tcaagtgtcc caactctgcg	3600
ctcagaactg aatctgctgg tggagaagat ggaccatgtc tatggtctct ctactgtata	3660
tctgaataag ttaaagacag ttgatgttat agtacgtagc atacaggatg ctgaactctt	3720
ggtcaaaggt tatgagatta agctgagtca agaagaagta gtactggcag atctctcagc	3780
tctggaggcc cattggctga cattacggca ctggcttagt gatgtgaagg acaagaattc	3840
agtgttttca gtccctggatg aggaaattgc caaggccaag gtagtggcag agcagatgag	3900
togtctgaca ccagagcgaa atctggattt ggagcgctat caggaaaaag gctcccagct	3960
gcaggagcgt tggcaccgag tcattgccc a gctcgagatt cgccaatctg agctagaaaag	4020
tatccaggaa gttctgggag attaccgagc ctgccatgga actctcatca agtggattga	4080
ggaaaccact gccagcagg aaatgatgaa gccaggccag gcagaggata gcagagtgtc	4140
ttcggagcag ctccagccagc agacggccct atttgcagaa attgagagaa atcagacaaa	4200
actggatcaa tgtcaaaaat tttcccagca gtactctact attgtaaaagg actatgaatt	4260
gcaactgatg acatacaagg cctttgtgga atcgagcag aaatcccctg gcaagcgccg	4320
tcgcatgctt tcctcttcag atgccatcac tcaagagttc atggacttaa ggactcgcta	4380
cacggcattg gtgactttta caactcagca cgtgaaatac atcagtgatg cactccggcg	4440
tctggaggag gaggagaaaag tggtagaaga ggagaaacaa gaacatgtgg agaaggttaa	4500
agaacttttg ggctgggtgt ctaccctagc gaggaataca caaggaaaag ctacctcatc	4560
cgagacccaaa gaatcaacag acattgaaaa agctattttg gaacagcagg ttctgtcaga	4620
agagctgaca acaaagaaaag aacaagtctc tgaagctatt aaaacatcac agatcttctt	4680

ggccaagcat ggtcataagc tctcagaaaa agagaagaaa caaatatctg agcaattgaa	4740
tgccctaaac aaggcttacc atgacctttg tgatggttct gcaaatacagc ttcagcagct	4800
tcagagccag ttggctcacc agacagaaca aaagacctg cagaaacaac aaaatacctg	4860
tcaccagcaa ctggaggatc tttgcagttg ggtaggacag gcagaaagag cactggcagg	4920
ccaccaaggc agaaccaccc agcaggatct ctctgctttg cagaagaacc aaagtgactt	4980
gaaggattta caggatgaca ttcagaatcg tgccacctca tttgccactg ttgtcaagga	5040
cattgagggg ttcattggaag agaatacagac caagctgagc ccacgtgagt tgacagctct	5100
tcgggaaaag cttcatcagg ctaaggagca atatgaggcg ctccaggaag agacacgtgt	5160
ggcccagaag gaactggagg aagcagtgac ctccgcctta cagcaggaga ctgaaaagag	5220
taaagcagca aaggaactgg cagagaacaa gaagaagatc gatgctctcc tggattgggt	5280
aacttcagta ggatcatctg gtggacagct gctgaccaac cttccaggaa tggagcagct	5340
ctcgggagct agcttggaag aaggagcctt ggacaccact gatgggttaca tgggggtgaa	5400
tcaagcccca gagaaactgg acaagcaatg tgagatgatg aaggcccgtc accaagaatt	5460
gctgtcccag cagcaaaatt tcattctggc caccagtcga gctcaggcct tcttgatca	5520
gcatggccac aatctcacac ctgaggagca acagatgctg caacagaagc tgggagagct	5580
aaaggaacaa tactctactt ccctggccca atcagaggca gaactgaagc aggtgcagac	5640
acttcaggat gagttgcaga aatttctgca ggatcataaa gagtttgaaa gctggttgga	5700
acgatccgag aaagagctgg agaacatgca taagggaggc agcagccccg agacccttcc	5760
ctccctgcta aagcggcaag gaagcttctc agaggatgtc atttcccaca aaggagactt	5820
gagatttgtg actatctcag gacagaaagt cttggacatg gaaaacagtt ttaaggaag	5880
caaagaacca tcagaaattg gaaacttagt aaaggacaag ttgaaggatg caacagaaag	5940
atacactgct ctccactcaa agtgtacacg attaggatct cacctgaata tgctgttagg	6000
ccagtatcat caattccaaa acagtgtgta cagcctgcag gcctggatgc aggttgtga	6060
ggccaacgtg gagaagctcc tctcagatac tgttgcctct gacctggag ttctccagga	6120
gcagcttgca acaacaagc agttgcagga ggaattggct gagcaccaag tacctgtgga	6180
aaaactccaa aaagtagctc gtgacataat ggaaattgaa ggggagccag cccagacca	6240
caggcatgtt caagaaacta cagattccat actcagccac ttccaaagcc tctcctatag	6300
cctggctgag cgatcttctc tgctgcagaa agcaattgcc caatctcaga gtgtccagga	6360
aagcctggag agcctgttgc agtctattgg ggaagttgaa caaacctgg aagggaagca	6420

ggtgtcatca ctctcatcag gagtcatcca ggaagcctta gccacaaata tgaattgaa	6480
gcaggacatt gctcggcaaa agagcagctt ggaggccacc cgtgagatgg tgacccgatt	6540
catggagaca gcagacagta ctacagcagc agtgctgcag ggcaaactgg cagaggtgag	6600
ccagcgggttc gaacagctct gtctacagca gcaagaaaag gagagctccc taaagaagct	6660
tctaccccag gcagagatgt ttgaacacct ctctggtaag ctgcagcagt tcatggaaaa	6720
caaaagtcgg atgctggcct ctggaaatca gccagatcaa gatattacac atttcttcca	6780
acagatccag gagctcaatt tggaaatgga agaccaacag gagaacctag atactcttga	6840
gcacctggtc actgaactga gctcttgtgg ctttgcgctg gacttgtgcc agcatcagga	6900
cagggtacag aatctaagaa aagacttcac agagctacag aagacagtta aagagagaga	6960
gaaagatgca tcatcttgcc aggaacagtt ggatgaattc cggaagctgg tcaggacctt	7020
ccagaaatgg ttgaaagaaa ctgaaggag tattccacct acggaaactt ctatgagtgc	7080
taaagagtta gaaaagcaga ttgaacacct gaagagtcta ctagatgact gggcaagtaa	7140
gggaactctg gtggaagaaa tcaattgcaa aggtacttct ttagaaaatc tcatcatgga	7200
aatcacagca cctgattccc aaggcaagac aggttcata ctgccctctg taggaagctc	7260
tgtaggcagt gtaaacggat accacacctg caaagatctg acggagatcc agtgtgacat	7320
gtcagatgta aacttgaagt atgagaaact agggggagta cttcatgaac gccaggaaaag	7380
ccttcaggct atcctcaaca gaatggagga gggtcacaag gaggcaaact ctgtgctgca	7440
gtggctggaa tcaaaagagg aagtcctgaa atccatggat gccatgtcat ctccaaccaa	7500
gacagaaaca gtgaaagccc aagctgaatc taacaaggcc ttccctggetg agttggaaca	7560
gaattctcca aaaattcaaa aagtaaagga agccctggct ggattactgg tgacatatcc	7620
caactcacag gaagcagaaa attggaagaa aattcaggaa gaactcaatt cccgatggga	7680
aagggccact gaggttactg tggctcggca aaggcagcta gaggaatctg caagtcatct	7740
ggcctgcttc caggctgcag aatcccagct ccggccgtgg ctgatggaga aagaactgat	7800
gatgggagtg ctggggcccc tgtctattga cccaacatg ttgaatgcac aaaagcaaca	7860
gtccagttt atgctaaagg aatttgaagc acgcaggcaa cagcatgagc aactgaatga	7920
ggcagctcag ggcatacctaa caggccctgg agatgtctct ctgtccacca gccaaagtaca	7980
gaaagaactc cagagcatca atcagaaatg gggttgagctg actgacaaac tcaactcccc	8040
ttccagccaa attgaccaag ctattgttaa gagcaccacag taccaggaac tgctccagga	8100
cttatcagag aaggtgaggg cagttggaca acggctgagt gtccagtcag ctatcagcac	8160
ccaaccagag gctgtaaagc agcaattgga agagaccagt gaaattcgat ctgacttggg	8220

gcagttagac cacgagggtta aggaggctca gacactgtgc gatgaactct cagtgtcat	8280
tggtgagcag tacctcaagg atgaactgaa gaagcgtttg gagacagttg ccctgcctct	8340
ccaagggttta gaagaccttg cagccgatcg cattaacaga ctccaggcag ctcttgccag	8400
cacccagcag ttccagcaaa tgtttgatga gttgaggacc tggttggatg ataaacaaag	8460
ccagcaagca aaaaactgcc caatttctgc aaaattggag cggctacagt ctgagctaca	8520
ggagaatgaa gagtttcaga aaagtcttaa tcaacacagt ggctcctatg aggtgattgt	8580
ggctgaaggg gaatctctac ttctttctgt acctcctgga gaagagaaaa ggactctaca	8640
aaaccagttg gttgagctca aaaaccattg ggaagagctt agtaaaaaaa ctgcagacag	8700
acaatccagg ctcaaggatt gtatgcagaa agctcagaaa tatcagtggc atgtggaaga	8760
ccttggtgcca tggatagaag attgtaaagc taagatgtct gagttgcgag tcaactctgga	8820
tccagtgcag ctagagtcca gtctcctaag atcaaaggct atgctgaatg aggtggagaa	8880
gcgccgctcc ctgctggaag tattgaatag tgctgctgac attctgatca attcttcaga	8940
agcagatgag gatggaatcc gggatgagaa ggctgggac aaccagaaca tggatgctgt	9000
tacagaagag ctgcaggcca aaacagggtc actcgaagaa atgactcaga ggctcaggga	9060
gttccaggaa agctttaaga atattgaaaa gaaggttgaa ggagccaaac accaacttga	9120
gatctttgat gctctgggtt ctcaagcctg tagcaacaag aacctggaga agctaagagc	9180
tcaacaggaa gtgctgcagg ccttagagcc tcaggtagac tatctgagga actttactca	9240
gggtctggta gaagatgcc cagatggatc tgatgcttct caacttctcc accaagctga	9300
ggtcgcccag caagagttcc tcgaagttaa gcaaagagtg aacagtgggt gtgtgatgat	9360
ggaaaacaag ctggagggga ttggccagtt tcaactgccg gtccgagaga tgttctctca	9420
attggcagac ctggatgatg agctagatgg catgggtgct attggcagag aactgatag	9480
cctccagtcc caaatcgagg atgtccggt attccttaac aaaattcacg tcctcaaatt	9540
agacatagag gcctctgaag cagagtgtcg acatattgcta gaagaagagg ggactctgga	9600
tttgttaggt ctcaaaaggg agctagaagc cctgaacaaa cagtgtggca aactgacaga	9660
gagggggaaa gctcgtcagg aacagctgga actgacacta ggccgtgtag aggacttcta	9720
caggaaattg aaaggactca atgacgcgac cacagcagca gaggaggcag aggccctcca	9780
gtgggtagtg gggaccgaag tggaaatcat caaccaacaa ttagcagatt ttaaaatgtt	9840
tcagaaagaa caagtggatc ctcttcagat gaaattgcag caggtgaatg gacttggcca	9900
gggattaatt cagagtgcag gaaaagactg tgatgtacag ggtttagaac atgacatgga	9960

agagatcaat gctcgatgga atacattgaa taaaaaggct gcacaaagaa ttgcacagct 10020
 acaggaagct ttgttgcat gtgggaagtt tcaagatgcc ttggagccat tgctcagctg 10080
 gttggcagat accgaggagc tcatagccaa tcagaaacct ccatctgctg agtataaagt 10140
 ggtgaaagca cagatccaag aacagaagtt gctccagcgg ctcttagatg atcgaaaggc 10200
 cacagtagac atgcttcaag cagaaggagg cagaatagcc cagtcagcag agctggctga 10260
 tagagagaaa atcactggac agctggagag tcttgaaagt agatggactg aactactcag 10320
 taaggcagca gccaggcaaa aacagctgga agacatcctg gttctggcca aacagttcca 10380
 tgagacagct gaggctatct ctgacttctt atctgtcaca gagaaaaagc ttgctaactc 10440
 agaacctgtt ggcactcaga ctgccaaaat acagcagcag atcattcggc acaaggctct 10500
 ggaagaagac atagaaaacc atgcaacaga tgtgcaccag gcagtcaaaa ttgggcagtc 10560
 cctctcctcc ctgacatctc ctgcagaaca ggggtgtgctg tcagaaaaga tagactcatt 10620
 gcaggcccca tacagtgaat ttcaagaccg ctgttgtcgg aaggcagccc tacttgacca 10680
 agctctgtct aatgctaggc tgtttgggga ggatgaggtg gaggtgctca actggctggc 10740
 tgaggttgag gacaagctca gttcagtgtt cgtaaaggat ttcaaacagg atgtcctgca 10800
 caggcagcat gctgaccacc tggctttaa tgaagaaatt gttaatagaa agaagaatgt 10860
 agatcaagct attaaaaatg gtcaggctct tctaaaacaa accacagggtg aggaggtgtt 10920
 acttatccag gaaaaactag atggtataaa gactcgttac gcagacatca cagttactag 10980
 ctccaaggcc ctgagaactt tagagcaagc ccggcagctg gccaccaagt tccagtctac 11040
 ttatgaggaa ctgaccgggt ggctgaggga ggtggaggag gagctggcaa ccagtggagg 11100
 acagtctccc acaggggaac agatacccca gtttcagcag agacagaagg aattaaagaa 11160
 ggaggtcatg gagcacaggc tgggtgttga cacagtgaat gaggtgagcc gtgctctctt 11220
 agagctgggtg ccctggagag ccagagaagg gctggataaa cttgtgtccg atgctaacga 11280
 gcagtacaaa ctagttagtg acactattgg acaaagggtg gatgaaattg atgctgctat 11340
 tcagagatca caacagtatg agcaagctgc cgatgcagaa ctagcttggg ttgctgaaac 11400
 aaaacggaaa ctgatggctc tgggtccaat tcgcctggaa caggaccaga ccacagctca 11460
 gcttcaggta cagaaggctt tctccattga cattattcga cacaagatt caatggatga 11520
 actcttcagt caccgtagtg aaatctttgg cacatgtggg gaggagcaaa aaactgtatt 11580
 acaggaaaag acagagtctc taatacagca atatgaagcc attagcctac tcaattcaga 11640
 gcgttatgcc cgcttagagc gggcccaggc cttagtaaac cagttttggg aaacttatga 11700
 agagctcagc ccctggattg aggaaactcg ggcactaata gcacagttac cctctccagc 11760

cattgatcat gagcagctca ggcagcaaca agaggaaatg aggcaattaa gggaaatctat 11820
tgctgaacac aaacctcata ttgacaaaact actaaagata ggcccacacac taaaggaatt 11880
aaaccctgag gaaggggaaa tgggtggaaga aaaataccag aaagcagaaa acatgtatgc 11940
ccaaataaag gaggaggtgc gccagcgagc cctggctctg gatgaagccg tgtcccagtc 12000
cacacagatt acagagtttc atgataaaat tgagcctatg ttggagacac tggagaatct 12060
ttcctctcgc ctgcgtatgc caccactgat ccctgctgaa gtagacaaga tcagagagtgc 12120
catcagtgc aataagagtgc ccaccgtgga gctagaaaaa ctgcagccat cctttgaggc 12180
cttgaagcgc cgtggagagg agcttattgg acgatctcag ggagcagaca aggatctggc 12240
tgcaaaagaa atccaggata aattggatca aatggtattc ttctgggagg acatcaaagc 12300
tcgggctgaa gaacgagaaa tcaaatttct tgatgtcctt gaattagcag agaagttctg 12360
gtatgacatg gcagctctcc tgaccaccat caaagacacc caggatattg tccatgactt 12420
ggaaagccca ggcattgatc cttccatcat caaacaacag gttgaagctg ctgagactat 12480
taaggaagag acagatggtc tgcatagaaga gctggagttt attcggatcc ttggagcaga 12540
tttgatTTTT gcctgtggag aaactgagaa gcctgaagtgc aggaagagca ttgatgagat 12600
gaataatgct tgggagaact taaacaaaac atggaaagag aggctagaaa aacttgagga 12660
tgctatgcaa gctgctgtgc agtatcagga cactcttcag gctatgtttg actggctaga 12720
taacactgtg attaaactct gcaccatgcc ccctgttggc actgacctca atactgttaa 12780
agatcagtta aatgaaatga aggagttcaa agtagaagtt taccaacagc aaattgagat 12840
ggagaagctt aatcaccagg gtgaactgat gttaaagaaa gctactgatg agacggacag 12900
agacattata cgagaaccac tgacagaact caaacacctc tgggagaacc tgggtgagaa 12960
aattgcccac cgacagcaca aactagaagg ggctctgttg gcccttggtc agttccagca 13020
tgcccttagag gaactaatga gttggctgac tcataccgaa gagttgttag atgctcagag 13080
accaataagt ggagacccaa aagtcattga agttgagctc gcaaagcacc atgtcctaaa 13140
aaatgatgtt ttggctcatc aagccacagt ggaaacagtc aacaaagctg gcaatgagct 13200
tcttgaatcc agtgctggag atgatgccag cagcttaagg agccgttttg aagccatgaa 13260
ccaatgctgg gagtcagtgt tacagaaaac agaggagagg gagcagcagc ttcagtcaac 13320
tctgcagcag gcccagggtc tccacagtga aattgaagat ttcctcttgg aacttactag 13380
aatggagagc cagctttctg catctaagcc cacaggagga cttcctgaaa ctgctagggg 13440
acagcttgat acacatatgg aactctattc ccagctgaaa gccaaggaag agacttataa 13500

tcaactactt gacaagggca gactcatgct tctaagccgt gacgactctg ggtctggctc 13560
caagacagaa cagagtgtag cacttttggga gcagaagtgg catgtgggtca gcagtaagat 13620
ggaagaaaga aagtcaaagc tggaagaggc cctcaacttg gcaacagaat tccagaattc 13680
cctacaagaa tttatcaact ggctcactct agcagagcag agtttaaaca tcgcttctcc 13740
accaagcctg attctaaata ctgtcctttc ccagatagaa gagcacaagg tttttgctaa 13800
tgaagtaaat gctcatcgag accagatcat tgagctggat caaactggga atcaattaaa 13860
gttccttagc caaaagcagg atgttggtct gatcaagaat ttgttgggtga gcgtgcagtc 13920
tcgatgggag aaggttgtcc agcgatctat tgaaagaggg cgatcactag atgatgccag 13980
gaagcgggca aaacaattcc atgaagcttg gaaaaaactg attgactggc tagaagatgc 14040
agagagtcac ctggactcag aactagagat atccaatgac ccagacaaaa ttaaacttca 14100
gctttctaag cataaggagt ttcagaagac tcttggtggc aagcagcctg tgtatgatac 14160
cacaattaga actggcagag cactgaaaga aaagactttg cttcccgaag atagtcagaa 14220
acttgacaat ttcctaggag aagtcagaga caaatgggat actgtttgtg gcaagtctgt 14280
ggagcggcag cacaagttgg aggaagccct gctcttttcg ggtcagttca tggatgcttt 14340
gcaggcattg gttgactggt tatacaaggt ggagccacag ctggctgagg accagcccgt 14400
gcacggggac cttgacctcg tcatgaacct catggatgca cacaaggttt tccagaagga 14460
actgggaaag cgaacaggaa ccgttcaggt cctgaagcgg tcaggccgag agctgattga 14520
gaatagtcga gatgacacca cttgggtaaa aggacagctc caggaaactga gcactcgctg 14580
ggacactgtc tgtaaactct ctgtttccaa acaaagccgg cttgagcagg ctttaaaaca 14640
agcgggaagtg tttcgagaca cagtccacat gctgttgagg tggctttctg aagcagagca 14700
aacgcttcgc tttcggggag cacttcctga tgacacagag gcctgcagt ctctcattga 14760
cacccataag gaattcatga agaaagtaga agaaaagcga gtggacgtta actcagcagt 14820
agccatggga gaagtcatcc tggctgtctg ccaccccgat tgcatacaaa ccatcaaaca 14880
ctggatcacc atcatccgag ctgccttcga ggaggtcctg acatgggcta agcagcacca 14940
gcagcgtctt gaaacggcct tgtcagaact ggtggctaata gctgagctcc tggaagaact 15000
tctggcatgg atccagtggg ctgagaccac cctcattcag cgggatcagg agccaatccc 15060
gcagaacatt gaccgagtta aagcccttat cgctgagcat cagacattta tggaggagat 15120
gactcgcaaa cagcctgacg tggaccgggt caccaagaca tacaaaagga aaaacataga 15180
gcctactcac gcgcctttca tagagaaatc ccgcagcggg ggcaggaaat ccctaagtca 15240
gccaaaccct cctcccatgc caatcctttc acagtctgaa gcaaaaaacc cacggatcaa 15300

ccagctttct gcccgctggc agcaggtgtg gctgttagca ctggagcggc aaaggaaact 15360
 gaatgatgcc ttggatcggc tggaggagtt gaaagaattt gccaaacttg actttgatgt 15420
 ctggaggaaa aagtatatgc gttggatgaa tcacaaaaag tctcgagtga tggatttctt 15480
 ccggcgcatt gataaggacc aggatgggaa gataacacgt caggagttta tcatggcat 15540
 tttagcatcc aagttcccca ccaccaagtt agagatgact gctgtggctg acattttcga 15600
 ccgagatggg gatggttaca ttgattatta tgaatttgtg gctgctcttc atcccaacaa 15660
 ggatgcgtat cgaccaacaa ccgatgcaga taaaatcgaa gatgagggtta caagacaagt 15720
 ggctcagtcg aaatgtgcaa aaaggtttca ggtggagcag atcggagaga ataaataccg 15780
 gtttggggat tctcagcagt tgcggctggt ccgtattctg cgcagcaccg tgatggttcg 15840
 cgttggtgga ggatggatgg ccttggatga attttttagtg aaaaatgatc cctgccgagc 15900
 acgaggtaga actaacattg aacttagaga gaaattcatc ctaccagagg gagcatocca 15960
 gggaatgacc cccttcgct caccgggtcg aagggtccaaa ccatcttccc gggcagcttc 16020
 ccctactcgt tccagctcca gtgctagtca gagtaaccac agctgtacat ccatgccatc 16080
 ttctccagcc accccagcca gtggaaccaa ggttatccca tcatcaggta gcaagttgaa 16140
 acgaccaaca ccaacttttc attctagtcg gacatccctt gctggtgata ccagcaatag 16200
 ttcttccccg gcctccacag gtgccaaaac taatcgggca gaccctaaaa agtctgccag 16260
 tcgccctggg agtcgggctg ggagtcgagc cgggagtcga gccagcagcc ggcgaggaag 16320
 tgacgcttct gactttgacc tcttagagac gcagtcctgt tgttccgaca cttcagaaag 16380
 cagcgtgca gggggccaag gcaactccag gagagggcta aacaaacctt ccaaaatccc 16440
 aaccatgtct aagaagacca ccaactgcct cccaggact ccagggtcca agcgataaca 16500
 ctgtctaagc accccaagc cactatccac tttgaatcct gctccataca ttgggtgtat 16560
 atttattctg aacgggagaa gttatattgt taaaagtgtg aaagaataat tgtgttatga 16620
 agctgcctta ttttttttct ttttgtaagt tactattttc atgtgaatat ttatgtagat 16680
 aaaatttgcc tcttggtaac cctgtaatgg atggggccca gaaatgaaat atttgagaaa 16740
 aacaagtgaa aaggtcaaga tacaaatgtg tattaataaaa aaaaaagcct attaataagg 16800
 tttctgcgcg gtgcagggtt gtaaacctgc tttatctttt aggattatc ctaaatgcat 16860
 cttctttata aacttgactt gctatctcag caagataaat tatattaaaa aaataagaat 16920
 cctgcagtgt ttaaggaact ctttttttgt aaatcacgga cacctcaatt agcaagaact 16980
 gaggggaggg ctttttccat tgtttaatgt tttgtgattt ttagctaaag agaggggaacc 17040

tcatctaagt aacatttgca catgatacag caaaaggagt tcattgcaat actgtctttg 17100
 gatattgttt cagtactggg tgtttaaagg acaaatagct gctagaattc aggggtaaat 17160
 gtaagtgttc agaaaacgtc agaacatttg ggggttttaa ctgatttggt gctccctatc 17220
 cagcctagac accagtaact cttgtgttca ccaggaccca gacccttggc aagggatagg 17280
 ctcgttggtg acattgtgaa tttcagattt gttttatcca ctttttttgc tatttattta 17340
 aatggtcgat caacttccca caaactgagg aatgaattcc acgagcctgt tctgaaaatg 17400
 tggacgtaag acaaacacgt gctcgtcctt taatggagtt caccagcaca cttgttaacc 17460
 agtcctgttt gctttcgtct ttttttgtgc gtaataaagt caactgacca agtgaccatg 17520
 aaaaggggct gtctggggct cctgtttttt agctgctgtt cttcagctcc gaccatgttg 17580
 ctgtgtgatt atctcaattg gttttaattg aggcagaaac tgaagctcta ccaatgaact 17640
 gtttagaaac aagacacact tttgtattaa aattgcttgc agtaacaaat attttgtatt 17700
 tcctgatttt cttttcaact attaccttat ctataaatgt taccctgggg tataatcatg 17760
 ttgtaggtac ttaaattgat tccgcaaata aaaatatctt gatggataaa ttatagagct 17820
 t 17821

<210> 53
 <211> 19271
 <212> DNA
 <213> Homo sapiens

<400> 53
 ggctctgatt cagttttctt tttcttctct tttccttttt tttttttttt tttttttttt 60
 ttttaggaatg cagagcagtt gctgggggtga ttgacctagg cacagtggag atatttccca 120
 tcttcaaagc catgcaaaag ggctccttg accaagacac aggcctagtg cttctggaat 180
 ctcaggttat catgtctggc ctcattgccc ctgagacggg tgaaaacctc tctttggagg 240
 agggcatagc cagaaacctc attaataccc agatgtacca gcagctccgg gagctacagg 300
 atgccttggc cttaataagc aggcttactg agagcagagg ccctctttct gtgggtggaag 360
 caattgaaaa gagaataatc agtgagacag ttggactgaa aatcttagaa gctcacctgg 420
 caactggagg tttcagtctt tcccctagtg agaactgtat taacctggaa gaggcttttc 480
 atcaaggcct catttctgca tggcttcatt cagtattaga gtcttatctt agaacatcca 540
 agaatttgat agaccctaac acagctgaga aaattggttt gctggatctg atgcagcgat 600
 gtattgtcca ccaggaatca ggattcaaata tactgctgt caaacaattg gcagggggga 660
 tggtgagctt gaaatcaggc cggaagggtta gcattttccg tgcagttcag gaaggggctaa 720

tagataggca ggtcactgtc cggttgctgg aagctcagct ttttgctggg ggcatagtag	780
atccaagaac aggacacaga cttacagtgg aagaggctgt aagacataat ctgattgacc	840
aagatatggc ctgtgctatc ctcataaggc agcttcagac aggaggcatc atagacactg	900
tcacggggca aaggctaaca atagatgaag cagtgaacaa tgatctagta gctgctaaga	960
tgcgcccttg gattctggag tccctctggg cattcatggg gttgctgtgg cctgaatctg	1020
gagagatcct cccaattaca gatgccctag aacaaggat tgtgtctact gaactagcac	1080
ataaaatcct tagtaaccga cagcatatta aggctctgtt tctaccagca accacagaga	1140
ttttgtcctg gaagaaagca atagaaagt gtatcctgga tagagatcct gccataaact	1200
taaaatcgat ttgtatacct gatgtgatgc ccacatgca actagcagac tctgcagaac	1260
aaaatattaa tcctggagca gcagttctac cgtgcagcaa gagccaccct aaggccacag	1320
caagccagag tgagaatctg ttgttccagc tgatgactca cagctatatt aatgtgcaaa	1380
atggacagag gctgcttctg ttagataaag agctgatgga gacactaaca tccagagatg	1440
agtatcaaac aagtcctcca aaagtgggtg aaattgggca tcaaaggcaa aaaactcctg	1500
agggattgca agaatcagct aatgtgaaaa tctcaggaac tttcagcagt ggggtggactg	1560
tgaggctgcc tgagttccag ttttcttctc agaacaaaga atatcccgat cgggaagatt	1620
gcactacaga aaaaggcaaa aagaccactg tagaaacaga agattcttct gtagagaacc	1680
ctgaacagga tctgtttgta gaacaaaaag agagaaatcc aaacattgat gctttgaagg	1740
taataaataa agtcaaatta gaggtacaaa ggcagttgat aggtacccaa agggaagacc	1800
aaacagcagt gtctgtcaga gaaaatgcc gcaggggaca cctcctgacc atacctcctg	1860
ctgaggcgga aggtgtgccg ttggtgggtg acaaagatgt tttttctgtt gaaacaccaa	1920
agaaagaaca tcaacctcta agaaacactt cctttacatg tcagaatgaa caagcacaca	1980
ctcttgagac tgaatatatt catgatgaaa ctggaggatc tcacataaaa ccccaaagca	2040
aaaagttaca agttcaggta aagaaaactc taggtataaa gttagaacta aagtctgaaa	2100
ctgatgggaa tgttcatect ctggacaaaa aggaaatgtt aaagaaaaca tttctggcta	2160
aggatgacca taaagaaagt caagaagcac agaacatcgc aggtggtagt atgatgatgt	2220
cagaaaagac cgatgaggaa gatagtggca gggaaatttt tctgtcatgc agtcatccat	2280
tagaattgct tgaagaagct accttaaag tattatctgc acagttacta gatgggtgta	2340
tctttcatga acaaacaggt caaaagctct tactaaatga agcaatatcc cgaggcattg	2400
tgccaagtca cactgccgtg aagcttatgg agaagctgaa catgtttcag gggttctttg	2460
actctcagac ttgtgagtct ttgacaactg aagaagtcac taatgaaggt ctgatggatg	2520

agaaattatt acataatgtc ctcatggcag acaaagctat aagtgggtgtc ttagaccccc	2580
gtaccagac actgtgctct gtaaaggatg cagttacagt tggacttctt gacaaggaaa	2640
cagccaccag aatttttagag aggcaggtgg tgactgggtgg aattattgat ctgaaacgag	2700
gcaaaaaagt ttcagtaact ttggcctcaa ctcttggctt ggtggacgtt gctgaccagc	2760
cagaacttat aaatctggag aaagcttcca aaggtagaga tgctgaaaaa acagttaggg	2820
agagattaat tagtttacia atggaaacia caggacttat agaccctgat agtaaagcac	2880
ctttaacagt tgtgcagtcc attgacagag gtcttttggg gagagaggag gccgttcgtt	2940
tgttgactaa gcaagtggta gatggaggta tcattcacca tatatctggg atgagacttt	3000
ctgttgataa tgccttcaga catggcttaa ttggtgaaga tttagccgag aaactcaaaa	3060
gagttgagaa cttaaacatc catcagattt ttaatcctga aacgaaggaa aatatttccc	3120
tccctaaagc cataaaatta gatcttatta cctcagacct gaaaagagaa atccaggagg	3180
ttcaggcctt tactggaaac tttgtggatc tcatttctgg tcagagattg accttggcag	3240
aagctaaaaa agaaggactg ttaactaatg aagcagtatt gtctccagga atgatgcag	3300
gcattgtaga tcccgagaac tgcagaattg tcccctactc agaattagtc aagaaatgta	3360
agattgatat tgaatctgga cagagatata tagaagtaat tcccttctca gacattaaag	3420
atgggggtgag cgacaaagtg cttacattgt ctcaagcaat tcagcttgga aaagtagact	3480
ttgcatctac gctgaagggt ctagaagccc aggcaaatac tgggtggaatc atagatactg	3540
ctactggaaa aagactgaca ttggcatcag ctttgggaaga gaaactggtg gatgaaaaca	3600
tggtcagaat tattgcatct catcaggtgt taaatggagg aattgttgac atatttagtg	3660
atcagagagt gacttttagta gaagctattg agaaaagact gatcagccct gaactggcaa	3720
atatgatcca aatagatagt tcagagttca gcgatcacag ggctcagatt gaaaagcaag	3780
aagggttgga agtgtgtgca ttacaaaatg aatttctagg aaaggatatg ttaattgctt	3840
gtaatcagac tgctgaaatg agttgtaata aagtagaaga gagtgagaga ttatttcaag	3900
ttgaaaatca gtctgcacaa gaaaagggtta aagtgagagt ttctgatggg gagcaggcaa	3960
aaaagagcag ggaaatttcc ttaaagggaat ttgggtgcaa ggatcaacgt aagccaagaa	4020
tgtcttcaga tgctaaagaa tttatcagta tcataaatcc tcataatctt aaaggtaaat	4080
ccttgggcca agtgtcattg acacaccctt actctgaatg tgattttaaa cttaaagaag	4140
tggctagaaa taacatggga aatgatacaa atgaagagca ggaaaaagca gtgacaaaaa	4200
tagaaattat ttctcatatg aagcagtcta cctcatgtct agattctgaa gaaataagag	4260

aaaatcaagg ggaagtgatt ttggaagtac aagaaacata ttgtgaaacg tcaggcaa	4320
tgccgagtga gcaggttttg cagcaaccaa tgaatgctcg ggtgaaaagt aagagagaga	4380
agagggaggt gattgtagaa gaaagtatca gaacatgcaa accagcattt ctttctgaag	4440
aaaagttgta tcaggaaact gccattagag atgagcatga ctcccatata aagagccaac	4500
ctagggaaat gacctcaagt gaaaaagga aagaagctga tacagaaatg ggattttcta	4560
ttacttttaa aattgaagag tcctcttccc aagtgggtacc tcaaggaatt tctgtaaaac	4620
atttagatgc tttaacactc ttcagctcta aacaggccaa tgaaggaaaa gtaaacaatt	4680
taagtctctg cttgacttta aaaccagaag aaaacttata tcgagaaatt gcctgtgggg	4740
cccagagtga accattccct tgtatgacct caagacctga aggattgcac taccaggaat	4800
cagatggaaa agcccaagtg acaggcccat ccaaatttc caaacagac aagtctttcc	4860
aaggaaccac cagacaggag accaactatc aagattcctg ggttacttcg aaaactaagg	4920
aaaccaaaca tcaaatttcc tcatctaata aatgtaaaga aaagtcatac caagaagtat	4980
cttttgacct agcaagaggt cttaaattgg aagaaatcac agtttctaga ccagattcaa	5040
aagaagtcag gtatctagaa ttctcagaca gaaaagacct tcatcatcag ggcagcaaaa	5100
gtgatgataa actttgtgga actctcaaat ctgaaatagc aacacaggaa ctaactggag	5160
agaaatttct agaaatggca aacctaatg ttgcaggtct agaagcagga tccattgagg	5220
acatagtgac tcagagaggt tccagagtct tgggatcctt tcttccagag aaactgttca	5280
aaggagtgtc tcaaaaagag aatacagggc aacagaatgc catcattagt cctactgttc	5340
tagagaccag tgaagaaaag acagtgtccc taacagtatg ctctgcagtg aagacagaga	5400
agacaccaca ggaaaagctc agagaaagcc ctggcagtga acaaactccc ttcatgactg	5460
cacctgaagg aaagggaaat ggaggtgtaa acccagagcc cttcagagca actcagaatg	5520
tatttaccog gcaactctgt ttagaacatg atgaaaagct agtatcctat ctgtctctgt	5580
tacggaacat tgaaatgagg accaaacaga ttcaaccttt ggagctaaac ctggcagaac	5640
tacaggatct gctgtgtcag gccaaaggtat tagaaagga gttaaaggat ctgaccacct	5700
tggtcagtca ggagctggag tgtgtgaatc agattatcat cagccagcct caagaagtcc	5760
ctgctcaact gttgaaggct ctagagaaaag atgccaagaa tcttcagaag tctctcagct	5820
ctgtgagtga cacttggaat tccaggctac tccacttcca gaatgctgtg gaaatagaaa	5880
agactaaagt gttaaatacag cacacacagc tagaaggccg acttcaagat ctgagagcct	5940
gggttggaac taaaaatctt attctgaaca gcaagggtac taacagtga atagatgttg	6000
acagcctgaa cctctgcctc caacagtatg aggatttgaa acagcccatg gctgaaagga	6060

aagctcagct ggatgctctt gcttttgata ttcagttctt tatctcagaa catgcccagg	6120
acttgteccc tcagcagaat cgacagatgc tgaggcttct gaatgaactg cagaggtcct	6180
tccaggacat tttggaacag actgccgctc aggtggatgc cttgcagggc catcttcaac	6240
aaatggagca ggaagccctg gtgaagacct tgcagaaaca aaaaaatacc tgtcaccagc	6300
aactggagga tctttgcagt tgggtaggac aggcagaaag agcactggca ggccaccaag	6360
gcagaaccac ccagcaggat ctctctgctt tgcagaagaa ccaaagtgac ttgaaggatt	6420
tacaggatga cattcagaat cgtgccacct catttgccac tgttgtcaag gacattgagg	6480
ggttcatgga agagaatcag accaagctga gccacagtga gttgacagct cttcgggaaa	6540
agcttcatca ggctaaggag caatatgagg cgctccagga agagacacgt gtggcccaga	6600
aggaactgga ggaagcagt acctccgctt tacagcagga gactgaaaag agtaaagcag	6660
caaaggaact ggcagagAAC aagaagaaga tcgatgctct cctggattgg gtaacttcag	6720
taggatcatc tgggtggacag ctgctgacca accttcagg aatggagcag ctctcgggag	6780
ctagcttggg gaaaggagcc ttggacacca ctgatggtta catgggggtg aatcaagccc	6840
cagagaaact ggacaagcaa tgtgagatga tgaaggcccg tcaccaagaa ttgctgtccc	6900
agcagcaaaa tttcattctg gccaccagct cagctcaggc cttcttggtat cagcatggcc	6960
acaatctcac acctgaggag caacagatgc tgcaacagaa gctgggagag ctaaaggaac	7020
aatactctac ttccctggcc caatcagagg cagaactgaa gcagggtgcag acacttcagg	7080
atgagttgca gaaatttctg caggatcata aagagtttga aagctgggtg gaacgatccg	7140
agaaagagct ggagaacatg cataagggag gcagcagccc cgagaccctt cctccctgc	7200
taaagcggca aggaagcttc tcagaggatg tcatttccca caaaggagac ttgagatttg	7260
tgactatctc aggacagaaa gtcttggaac tggaaaacag ttttaaggaa ggcaaagaac	7320
catcagaaat tggaaactta gtaaaggaca agttgaagga tgcaacagaa agatacactg	7380
ctctccactc aaagtgtaca cgattaggat ctacactgaa tatgctgtta ggccagtatc	7440
atcaattcca aaacagtgct gacagcctgc aggcctggat gcaggcttgt gaggccaacg	7500
tggagaagct cctctcagat actgttgctt ctgacctgg agttctccag gaggagcttg	7560
caacaacaaa gcagttgcag gaggaattgg ctgagcacca agtacctgtg gaaaaactcc	7620
aaaaagtagc tcgtgacata atggaaattg aaggggagcc agccccagac cacaggcatg	7680
ttcaagaaac tacagattcc atactcagcc acttccaaag cctctcctat agcctggctg	7740
agcgatcttc tctgctgcag aaagcaattg cccaatctca gagtgtccag gaaagcctgg	7800

agagcctgtt gcagtctatt ggggaagttg aacaaaacct ggaagggag caggtgtcat	7860
cactctcatc aggagtcac caggaagcct tagccacaaa tatgaaattg aagcaggaca	7920
ttgctcggca aaagagcagc ttggaggcca cccgtgagat ggtgaccga ttcattggaga	7980
cagcagacag tactacagca gcagtgtgc agggcaaaact ggcagaggtg agccagcggc	8040
tcgaacagct ctgtctacag cagcaagaaa aggagagctc cctaaagaag cttctacccc	8100
aggcagagat gtttgaacac ctctctggta agctgcagca gttcatggaa aacaaaagtc	8160
ggatgtctggc ctctggaaat cagccagatc aagatattac acatttcttc caacagatcc	8220
aggagctcaa tttggaaatg gaagaccaac aggagaacct agatactctt gagcacctgg	8280
tcactgaact gagctcttgt ggctttggc tggacttgtg ccagcatcag gacagggtag	8340
agaatctaag aaaagacttc acagagctac agaagacagt taaagagaga gagaaagatg	8400
catcatcttg ccaggaacag ttggatgaat tccggaagct ggtcaggacc ttccagaaat	8460
ggttgaaaga aactgaaggg agtattccac ctacggaaac ttctatgagt gctaaagagt	8520
tagaaaagca gattgaacac ctgaagagtc tactagatga ctgggcaagt aagggaactc	8580
tggtggaaga aatcaattgc aaaggctactt ctttagaaaa tctcatcatg gaaatcacag	8640
cacctgattc ccaaggcaag acagggtcca tactgccctc tgtaggaagc tctgtaggca	8700
gtgtaaaccg ataccacacc tgcaaagatc tgacggagat ccagtgtgac atgtcagatg	8760
taaacttgaa gtatgagaaa ctagggggag tacttcatga acgccaggaa agccttcagg	8820
ctatcctcaa cagaatggag gaggttcaca aggaggcaaa ctctgtgctg cagtggctgg	8880
aatcaaaaga ggaagtctg aaatccatgg atgccatgtc atctccaacc aagacagaaa	8940
cagtgaagc ccaagctgaa tctaacaagg ctttctggc tgagttggaa cagaattctc	9000
caaaaattca aaaagtaaag gaagccctgg ctggattact ggtgacatat cccaactcac	9060
aggaagcaga aaattggaag aaaattcagg aagaactcaa tccccgatgg gaaagggcca	9120
ctgaggttac tgtggctcgg caaaggcagc tagaggaatc tgcaagtcac ctggcctgct	9180
tccaggctgc agaatcccag ctccggccgt ggctgatgga gaaagaactg atgatgggag	9240
tgctggggcc cctgtctatt gaccccaaca tggtgaatgc aaaaagcaa caggtccagt	9300
ttatgctaaa ggaatttgaa gcacgcaggc aacagcatga gcaactgaat gaggcagctc	9360
agggcacct aacaggccct ggagatgtct ctctgtccac cagccaagta cagaaagaac	9420
tccagagcat caatcagaaa tgggttgagc tgactgacaa actcaactcc cgttccagcc	9480
aaattgacca agctattgtt aagagcacc agtaccagga actgctccag gacttatcag	9540
agaaggtgag ggcagttgga caacggctga gtgtccagtc agctatcagc acccaaccag	9600

aggctgtaaa gcagcaattg gaagagacca gtgaaattcg atctgacttg gagcagttag 9660
 accacgaggt taaggaggct cagacactgt gcgatgaact ctgagtgcctc attggtgagc 9720
 agtacctcaa ggatgaactg aagaagcgtt tggagacagt tgcctgcct ctccaagggtt 9780
 tagaagacct tgcagccgat cgcattaaca gactccaggc agctcttgcc agcaccagc 9840
 agttccagca aatgtttgat gagttgagga cctgggttga tgataaaca agccagcaag 9900
 caaaaaactg cccaatttct gcaaaattgg agcggctaca gtctcagcta caggagaatg 9960
 aagagtttca gaaaagtctt aatcaacaca gtggctccta tgaggtgatt gtggctgaag 10020
 gggaatctct acttctttct gtacctctg gagaagagaa aaggactcta caaaaccagt 10080
 tgggtgagct caaaaacat tgggaagagc ttagtaaaaa aactgcagac agacaatcca 10140
 ggctcaagga ttgtatgcag aaagctcaga aatatcagtg gcatgtggaa gaccttgtgc 10200
 catggataga agattgtaaa gctaagatgt ctgagttgcg agtcactctg gatccagtgc 10260
 agctagagtc cagtctccta agatcaaagg ctatgctgaa tgaggtggag aagcgccgct 10320
 ccctgctgga aatattgaat agtgctgctg acattctgat caattcttca gaagcagatg 10380
 aggatggaat ccgggatgag aaggctggga tcaaccagaa catggatgct gttacagaag 10440
 agctgcaggc caaaacaggg tctctgaag aaatgactca gaggtcagg gagttccagg 10500
 aaagctttaa gaatattgaa aagaagggtg aaggagccaa acaccaactt gagatctttg 10560
 atgctctggg ttctcaagcc tgtagcaaca agaacctgga gaagctaaga gctcaacagg 10620
 aagtgctgca ggccctagag cctcaggtag actatctgag gaactttact cagggtctgg 10680
 tagaagatgc ccagatgga tctgatgctt ctcaacttct ccaccaagct gaggtcgccc 10740
 agcaagagtt cctcgaagtt aagcaaagag tgaacagtgg ttgtgtgatg atggaaaaca 10800
 agctggaggg gattggccag tttcactgcc gggtcggaga gatgttctct caattggcag 10860
 acctggatga tgagctagat ggcattgggtg ctattggcag agacactgat agcctccagt 10920
 cccaaatcga ggatgtccgg ctattcctta acaaaattca cgtcctcaaa ttagacatag 10980
 aggctctga agcagagtgt cgacatatgc tagaagaaga ggggactctg gatttgtag 11040
 gtctcaaaag ggagctagaa gccctgaaca aacagtgtgg caaactgaca gagaggggga 11100
 aagctcgtca ggaacagctg gaactgacac taggccgtgt agaggacttc tacaggaaat 11160
 tgaaaggact caatgacgcg accacagcag cagaggaggc agaggccctc cagtgggtag 11220
 tggggaccga agtggaatc atcaaccaac aattagcaga ttttaaatg tttcagaaag 11280
 aacaagtgga tcctcttcag atgaaattgc agcaggtgaa tggacttggc cagggattaa 11340

ttcagagtgc aggaaaagac tgtgatgtac aggggtttaga acatgacatg gaagagatca 11400
 atgctcgatg gaatacattg aataaaaagg tcgcacaaag aattgcacag ctacaggaag 11460
 ctttgttgca ttgtgggaag tttcaagatg ccttgaggcc attgctcagc tggttggcag 11520
 ataccgagga gctcatagcc aatcagaaac ctccatctgc tgagtataaa gtggtgaaag 11580
 cacagatcca agaacagaag ttgctccagc ggctcctaga tgatcgaaag gccacagtag 11640
 acatgcttca agcagaagga ggcagaatag ccagtcagc agagctggct gatagagaga 11700
 aaatcactgg acagctggag agtcttgaaa gtagatggac tgaactactc agtaaggcag 11760
 cagccaggca aaaacagctg gaagacatcc tggttctggc caaacagttc catgagacag 11820
 ctgagcctat ttctgacttc ttatctgtca cagagaaaaa gcttgctaac tcagaacctg 11880
 ttggcactca gactgccaaa atacagcagc agatcattcg gcacaaggct ctggaagaag 11940
 acatagaaaa ccatgcaaca gatgtgcacc aggcagtcaa aattgggcag tccctctcct 12000
 ccctgacatc tcctgcagaa caggggtgtg tgtcagaaaa gatagactca ttgcaggccc 12060
 gatacagtga aattcaagac cgctgttgtc ggaaggcagc cctacttgac caagctctgt 12120
 ctaatgctag gctgtttggg gaggatgagg tggaggtgct caactggctg gctgaggttg 12180
 aggacaagct cagttcagtg ttcgtaaagg atttcaaaca ggatgtcctg cacaggcagc 12240
 atgctgacca cctggcttta aatgaagaaa ttgttaatag aaagaagaat gtagatcaag 12300
 ctattaaaaa tggtcaggct cttctaaaac aaaccacagg tgaggaggtg ttacttatcc 12360
 aggaaaaact agatggtata aagactcgtt acgcagacat cacagttact agctccaagg 12420
 ccctcagaac tttagagcaa gcccggcagc tggccaccaa gttccagtct acttatgagg 12480
 aactgaccgg gtggctgagg gaggtggagg aggagctggc aaccagtgga ggacagtctc 12540
 ccacagggga acagataccc cagtttcagc agagacagaa ggaattaaag aaggaggtca 12600
 tggagcacag gctgggtgtg gacacagtga atgaggtgag ccgtgctctc ttagagctgg 12660
 tgccctggag agccagagaa gggctggata aacttggtgc cgatgctaac gagcagtaca 12720
 aactagtcag tgacactatt ggacaaaggg tggatgaaat tgatgctgct attcagagat 12780
 cacaacagta tgagcaagct gccgatgcag aactagcttg ggttgctgaa aaaaaacgga 12840
 aactgatggc tctgggtcca attcgctgg aacaggacca gaccacagct cagcttcagg 12900
 tacagaaggc tttctccatt gacattattc gacacaaaga ttcaatggat gaactcttca 12960
 gtcaccgtag tgaaatcttt ggcacatgtg gggaggagca aaaaactgta ttacaggaaa 13020
 agacagagtc tctaatacag caatatgaag ccattagcct actcaattca gagcggttatg 13080
 cccgcctaga gcgggcccag gtcttagtaa accagttttg ggaaacttat gaagagctca 13140

gcccttgat tgaggaaact cgggcactaa tagcacagtt accctctcca gccattgatc 13200
 atgagcagct caggcagcaa caagaggaaa tgaggcaatt aagggaatct attgctgaac 13260
 acaaacctca tattgacaaa ctactaaaga taggcccaca actaaaggaa ttaaaccctg 13320
 aggaagggga aatggtggaa gaaaaatacc agaaagcaga aaacatgtat gcccaaataa 13380
 aggaggaggt ggcgcagcga gccctggctc tggatgaagc cgtgtcccag tccacacaga 13440
 ttacagagtt tcatgataaa attgagccta tgttggagac actggagaat ctttcctctc 13500
 gcctgcgtat gccaccactg atccctgctg aagtagacaa gatcagagag tgcacagtg 13560
 acaataagag tgccaccgtg gagctagaaa aactgcagcc atcctttgag gccttgaagc 13620
 gccgtggaga ggagcttatt ggacgatctc agggagcaga caaggatctg gctgcaaaag 13680
 aaatccagga taaattggat caaatggtat tcttctggga ggacatcaaa gctcgggctg 13740
 aagaacgaga aatcaaattt cttgatgtcc ttgaattagc agagaagttc tggatgaca 13800
 tggcagctct cctgaccacc atcaaagaca ccaggatat tgtccatgac ttggaaagcc 13860
 caggcattga tccttccatc atcaaacaac aggttgaagc tgctgagact attaaggaag 13920
 agacagatgg tctgcatgaa gagctggagt ttattcggat ccttgagca gatttgattt 13980
 ttgcctgtgg agaaactgag aagcctgaag tgaggaagag cattgatgag atgaataatg 14040
 cttgggagaa cttaaacaaa acatggaaag agaggctaga aaaacttgag gatgctatgc 14100
 aagctgctgt gcagtatcag gacactcttc aggctatggt tgactggcta gataaactg 14160
 tgattaaact ctgcaccatg cccctggtg gcactgacct caatactgtt aaagatcagt 14220
 taaatgaaat gaaggagttc aaagtagaag ttaccaaca gcaaattgag atggagaagc 14280
 ttaatcacca ggggtgaactg atgttaaaga aagctactga tgagacggac agagacatta 14340
 tacgagaacc actgacagaa ctcaaacc tctgggagaa cctgggtgag aaaattgccc 14400
 accgacagca caaactagaa ggggctctgt tggccttg tgcagttccag catgccttag 14460
 aggaactaat gagttggctg actcataccg aagagttggt agatgctcag agaccaataa 14520
 gtggagaccc aaaagtcatt gaagttgagc tcgcaaagca ccatgtccta aaaaatgatg 14580
 ttttggctca tcaagccaca gtggaaacag tcaacaaagc tggcaatgag cttcttgaat 14640
 ccagtgtgg agatgatgcc agcagcttaa ggagccgttt ggaagccatg aaccaatgct 14700
 gggagtcagt gttacagaaa acagaggaga gggagcagca gcttcagtca actctgcagc 14760
 aggccaggg cttccacagt gaaattgaag atttcctctt ggaacttact agaattggaga 14820
 gccagcttct tgcattctaa cccacaggag gacttctga aactgctagg gaacagcttg 14880

atacacatat ggaactctat tcccagctga aagccaagga agagacttat aatcaactac 14940
 ttgacaaggg cagactcatg cttctaagcc gtgacgactc tgggtctggc tccaagacag 15000
 aacagagtgt agcacttttg gagcagaagt ggcatgtggt cagcagtaag atggaagaaa 15060
 gaaagtcaaa gctggaagag gccctcaact tggcaacaga attccagaat tccctacaag 15120
 aatttatcaa ctggctcact ctagcagagc agagtttaaa catcgcttct ccaccaagcc 15180
 tgattctaaa tactgtcctt tcccagatag aagagcaciaa ggtttttgct aatgaagtaa 15240
 atgctcatcg agaccagatc attgagctgg atcaaactgg gaatcaatta aagttcctta 15300
 gccaaaagca ggatgttgtt ctgatcaaga atttgttggg gagcgtgcag tctcgatggg 15360
 agaaggttgt ccagcgatct attgaaagag ggcgatcact agatgatgcc aggaagcggg 15420
 caaaacaatt ccatgaagct tggaaaaaac tgattgactg gctagaagat gcagagagtc 15480
 acctggactc agaactagag atatccaatg acccagaciaa aattaaactt cagctttcta 15540
 agcataagga gtttcagaag actcttggtg gcaagcagcc tgtgtatgat accacaatta 15600
 gaactggcag agcactgaaa gaaaagactt tgcttccoga agatagtcag aaacttgaca 15660
 atttcctagg agaagtcaga gacaaatggg atactgtttg tggcaagtct gtggagcggc 15720
 agcacaagtt ggaggaagcc ctgctctttt cgggtcagtt catggatgct ttgcaggcat 15780
 tggttgactg gttatacaag gtggagccac agctggctga ggaccagccc gtgcacgggg 15840
 accttgacct cgtcatgaac ctcatggatg cacacaaggt tttccagaag gaactgggaa 15900
 agcgaacagg aaccgttcag gtctgaagc ggtcaggccg agagctgatt gagaatagtc 15960
 gagatgacac cacttgggta aaaggacagc tccaggaact gagcactcg tgggacactg 16020
 tctgtaaaact ctctgtttcc aaacaaagcc ggcttgagca ggccttaaaa caagcggag 16080
 tgtttcgaga cacagtccac atgctgttgg agtggctttc tgaagcagag caaacgcttc 16140
 gctttcgggg agcacttct gatgacacag aggccctgca gtctctcatt gacaccata 16200
 aggaattcat gaagaaagta gaagaaaagc gagtggacgt taactcagca gtagccatgg 16260
 gagaagtcac cctggctgtc tgccaccccg attgcatcac aaccatcaaa cactggatca 16320
 ccatcatccg agctcgcttc gaggaggtcc tgacatgggc taagcagcac cagcagcgtc 16380
 ttgaaacggc cttgtcagaa ctggtggcta atgctgagct cctggaagaa cttctggcat 16440
 ggatccagtg ggctgagacc accctcattc agcgggatca ggagccaatc ccgcagaaca 16500
 ttgaccgagt taaagccctt atcgctgagc atcagacatt tatggaggag atgactcgca 16560
 aacagcctga cgtggaccgg gtcaccaaga catacaaaag gaaaaacata gagcctactc 16620
 acgcgccttt catagagaaa tcccgacgag gaggcaggaa atccctaagt cagccaaccc 16680

ctctctcccat gccaatcctt tcacagtctg aagcaaaaaa cccacggatc aaccagcttt 16740
 ctgcccgcctg gcagcagggtg tggctgttag cactggagcg gcaaaggaaa ctgaatgatg 16800
 ccttggtatcg gctggaggag ttgaaagaat ttgccaaactt tgactttgat gtctggagga 16860
 aaaagtatat gcgttggtatg aatcacaaaa agtctcgagt gatggatttc ttccggcgca 16920
 ttgataagga ccaggatggg aagataaacac gtcaggagtt tatcgatggc attttagcat 16980
 ccaagttccc caccaccaag ttagagatga ctgctgtggc tgacattttc gaccgagatg 17040
 gggatggtta cattgattat tatgaatttg tggctgctct tcatcccaac aaggatgcgt 17100
 atcgaccaac aaccgatgca gataaaatcg aagatgaggt tacaagacaa gtggctcagt 17160
 gcaaatgtgc aaaaagggtt cagggtggagc agatcggaga gaataaatac cggttcttcc 17220
 tcggcaatca gtttggggat tctcagcagt tgcggctggt ccgtattctg cgcagcaccg 17280
 tgatggttcg cgttggtgga ggatggatgg ccttggtatga atttttagtg aaaaatgatc 17340
 cctgccgagc acgaggtaga actaacattg aacttagaga gaaattcatc ctaccagagg 17400
 gagcatccca gggaatgacc ccttccgct cacggggctg aagggtccaaa ccatcttccc 17460
 gggcagcttc cctactcgt tccagctcca gtgctagtca gagtaaccac agctgtacat 17520
 ccatgccatc ttctccagcc accccagcca gtggaaccaa ggttatccca tcatcaggta 17580
 gcaagttgaa acgaccaaca ccaacttttc attctagtctg gacatccctt gctgggtgata 17640
 ccagcaatag ttcttccccg gcctccacag gtgccaaaac taatcgggca gaccctaaaa 17700
 agtctgccag tcgccctggg agtcgggctg ggagtcgagc cgggagtcga gccagcagcc 17760
 ggcgaggaag tgacgcttct gactttgacc tcttagagac gcagtctgct tgttccgaca 17820
 cttcagaaag cagcgtgca gggggccaag gcaactccag gagagggcta aacaaacctt 17880
 ccaaaatccc aaccatgtct aagaagacca ccactgcctc cccaggact ccagggtccca 17940
 agcgataaca ctgtctaagc accccaagc cactatccac tttgaatcct gtcataaca 18000
 ttgggtgtat atttattctg aacgggagaa gttatattgt taaaagtgt aaagaataat 18060
 tgtgttatga agctgcctta ttttttttct ttttgtaagt tactattttc atgtgaatat 18120
 ttatgtagat aaaatttgcc tcctggtaac cctgtaatgg atggggccca gaaatgaaat 18180
 atttgagaaa aacaagtga aagggtcaaga taaaaatgtg tattaaaaaa aaaaaagcct 18240
 attaataggg tttctgcgcg gtgcagggtt gtaaacctgc tttatctttt aggattattc 18300
 ctaaatgcat cttctttata aacttgactt gctatctcag caagataaat tatattaaaa 18360
 aaataagaat cctgcagtgt ttaaggaact ctttttttgt aaatcacgga cacctcaatt 18420

agcaagaact gaggggaggg ctttttccat tgtttaatgt tttgtgattt ttagctaaag 18480
 agaggggaacc tcatctaagt aacatttgca catgatacag caaaaggagt tcattgcaat 18540
 actgtctttg gatattgttt cagtactggg tgtttaaagg acaaatagct gctagaattc 18600
 aggggtaaat gtaagtgttc agaaaacgtc agaacatttg gggttttaaa ctgatttggt 18660
 gctccctatc cagcctagac accagtaact cttgtgttca ccaggaccca gacccttggc 18720
 aagggatagg ctcgttggtg acattgtgaa tttcagattt gttttatcca ctttttttgc 18780
 tatttattta aatggtcgat caacttccca caaactgagg aatgaattcc acgagcctgt 18840
 tctgaaaatg tggacgtaag acaaacacgt gctcgtcctt taatggaggt caccagcaca 18900
 cttgttaacc agtcctgttt gctttcgtct ttttttgtgc gtaataaagt caactgacca 18960
 agtgaccatg aaaaggggct gtctggggct cctgtttttt agctgctgtt cttcagctcc 19020
 gaccatgttg ctgtgtgatt atctcaattg gttttaattg aggcagaaac tgaagctcta 19080
 ccaatgaact gtttagaaac aagacacact tttgtattaa aattgcttgc agtaacaaat 19140
 attttgtatt tcttgatttt cttttcaact attaccttat ctataaatgt taccctgggg 19200
 tataatcatg ttgtaggtac ttaaattgcat tccgcaaatac aaaatatctt gatggataaa 19260
 ttatagagct t 19271

<210> 54
 <211> 2688
 <212> DNA
 <213> Homo sapiens

<400> 54
 catctcccgg cggcggggccg cggaagcagt gcagacgcgg ctccctagcgg atgggtgcta 60
 ttgtgaggcg gttgtagaag agtttcgtga gtgctcgcag ctcatacctg tggctgtgta 120
 tccgtggcca cagctgggtg gcgtcgcctt gaaatcccag gccgtgagga gttagcgagc 180
 cctgctcaca ctcggcgctc tggttttcgg tgggtgtgcc ctgcacctgc ctcttcccc 240
 attctcatta ataaaggtat ccatggagaa cactgaaaac tcagtggatt caaaatccat 300
 taaaaatttg gaaccaaaga tcatacatgg aagcgaatca atggactctg gaatatccct 360
 ggacaacagt tataaaatgg attatcctga gatgggttta tgtataataa ttaataataa 420
 gaattttcat aaaagcactg gaatgacatc tcggtctggt acagatgtcg atgcagcaaa 480
 cctcagggaa acattcagaa acttgaaata tgaagtcagg aataaaaatg atcttacacg 540
 tgaagaaatt gtggaattga tgcgtgatgt ttctaaagaa gatcacagca aaaggagcag 600
 ttttgtttgt gtgcttctga gccatggtga agaaggaata atttttggaa caaatggacc 660

tggtgacctg	aaaaaaataa	caaacttttt	cagaggggat	cgttgtagaa	gtctaactgg	720
aaaacccaaa	cttttcatta	ttcaggcctg	ccgtggtaca	gaactggact	gtggcattga	780
gacagacagt	ggtggtgatg	atgacatggc	gtgtcataaa	ataccagtgg	aggccgactt	840
cttgatgca	tactccacag	cacctgggta	ttattcttgg	cgaaattcaa	aggatggctc	900
ctggttcatc	cagtcgcttt	gtgccatgct	gaaacagtat	gccgacaagc	ttgaatttat	960
gcacattctt	acccgggtta	accgaaaggt	ggcaacagaa	tttgagtcct	tttcctttga	1020
cgctactttt	catgcaaaga	aacagattcc	atgtattggt	tccatgctca	caaaagaact	1080
ctatttttat	cactaaagaa	atgggttggt	ggtgggtttt	tttagtttgt	atgccaagtg	1140
agaagatggt	atatttggtg	ctgtatttcc	ctctcatttt	gacctactct	catgctgcag	1200
aggggtacttt	aagacatact	ccttccatca	aatagaacca	ctatgaagct	acctcaaact	1260
tccagtcagg	tagttgcaat	tgaattaaat	taggaataaa	taaaaatgga	tactggtgca	1320
gtcattatga	gaggcaatga	ttgttaattt	acagctttca	tgattagcaa	gttacagtga	1380
tgctgtgcta	tgaattttca	agtaattgtg	aaaaagttaa	acattgaagt	aatgaatttt	1440
tatgatattc	ccccactta	agactgtgta	ttctagtttt	gtcaaactgt	agaaatgatg	1500
atgtggaaga	acttaggcat	ctgtgggcat	ggtcaaaggc	tcaaaccttt	attttagaat	1560
tgatatacac	ggatgactta	actgcatttt	tagaccattt	atctgggatt	atggttttgt	1620
gatgtttgtc	ctgaacactt	ttgttgtaaa	aaaataataa	taatgtttaa	tattgagaaa	1680
gaaactaata	ttttatgtga	gagaaagtgt	gagcaaacta	acttgacttt	taaggctaaa	1740
acttaacatt	catagagggg	tggagtttta	actgtaaggt	gctacaatgc	ccctggatct	1800
accagcataa	atatcttctg	atttgtccct	atgcatatca	gttgagcttc	atataccagc	1860
aatatatctg	aagagctatt	atataaaaac	cccaaactgt	tgattattag	ccaggtaatg	1920
tgaataaatt	ctataggaac	atatgaaaat	acaacttaaa	taataaacag	tggaatataa	1980
ggaaagcaat	aaatgaatgg	gctgagctgc	ctgtaacttg	agagtagatg	gtttgagcct	2040
gagcagagac	atgactcagc	ctgttccatg	aaggcagagc	catggaccac	gcaggaaggg	2100
cctacagccc	atttctccat	acgcactggg	atgtgtggat	gatgctgcca	gggcgccatc	2160
gccaagtaag	aaagtgaagc	aaatcagaaa	cttgtgaagt	ggaaatgttc	taaagggtgg	2220
gaggcaataa	aaatcatagt	actctttgta	gcaaaattct	taagtatgtt	attttctgtt	2280
gaagtttaca	atcaaaggaa	aatagtaatg	ttttatactg	tttactgaaa	gaaaaagacc	2340
tatgagcaca	taggactcta	gacggcatcc	agccggaggc	cagagctgag	ccctcagccc	2400
gggaggcagg	ctccaggcct	cagcaggtgc	ggagccgtca	ctgcaccaag	tctcactggc	2460

tgtcagtatg acatttcacg ggagatttct tgttgctcaa aaaatgagct cgcatttgtc 2520
aatgacagtt tcttttttct tactagacct gtaacttttg taaatacaca tagcatgtaa 2580
tggatatctta aagtgtgttt ctatgtgaca attttgtaca aatttgttat tttccatttt 2640
tatttcaaaa tatacattca aacttaaaat taaaaaaaaa aaaaaaaaaa 2688

<210> 55
<211> 2522
<212> DNA
<213> Homo sapiens

<400> 55
acatctcccg gcggcgggcc gcggaagcag tgcagacgcg gctcctagcg gatgggtgct 60
attgtgaggc ggttgtagaa gttaataaag gtatccatgg agaacactga aaactcagtg 120
gattcaaaat ccattaaaaa tttggaacca aagatcatac atggaagcga atcaatggac 180
tctggaatat ccctggacaa cagttataaa atggattatc ctgagatggg tttatgtata 240
ataattaata ataagaatth tcaataaagc actggaatga catctcgggc tggtagagat 300
gtcgatgcag caaacctcag ggaaacattc agaaacttga aatatgaagt caggaataaa 360
aatgatctta cacgtgaaga aattgtggaa ttgatgcgtg atgtttctaa agaagatcac 420
agcaaaagga gcagttttgt ttgtgtgctt ctgagccatg gtgaagaagg aataatthtt 480
ggaacaaatg gacctgttga cctgaaaaaa ataacaaact ttttcagagg ggatcgttgt 540
agaagtctaa ctggaaaacc caaactthttc attattcagg cctgccgtgg tacagaactg 600
gactgtggca ttgagacaga cagtgggtgt gatgatgaca tggcgtgtca taaaatacca 660
gtggaggccg acttcttgta tgcatactcc acagcacctg gttattattc ttggcgaaat 720
tcaaaggatg gctcctgggt catccagtcg ctttgtgcc a tgctgaaaca gtatgccgac 780
aagcttgaat ttatgcacat tcttaccggt gttaaccgaa aggtggcaac agaatttgag 840
tctttttcct ttgacgctac ttttcatgca aagaaacaga ttccatgtat tgthttccatg 900
ctcacaaaag aactctatth ttatcactaa agaaatgggt ggttggtggt tthtttttagt 960
ttgtatgcc a gtgagaaga tggatattht ggtactgtat thcctctca tthtgaccta 1020
ctctcatgct gcagagggta ctttaagaca tactccttcc atcaaataga accactatga 1080
agctacctca aacttccagt caggtagttg caattgaatt aaattaggaa taaataaaaa 1140
tggatactgg tgcagtcatt atgagaggca atgattgtta atttacagct thcatgatta 1200
gcaagttaca gtgatgctgt gctatgaatt thcaagtaat tgtgaaaaag ttaaacattg 1260
aagtaatgaa tthttatgat attcccccca ctttaagactg tgtattctag tthtgtcaaa 1320

```

ctgtagaaat gatgatgtgg aagaacttag gcatctgtgg gcatgggtcaa aggctcaaac 1380
ctttatttta gaattgatat acacggatga ctttaactgca ttttttagacc atttatctgg 1440
gattatgggtt ttgtgatgtt tgtcctgaac acttttgttg taaaaaata ataataatgt 1500
ttaatattga gaaagaaact aatattttat gtgagagaaa gtgtgagcaa actaacttga 1560
cttttaaggc taaaacttaa cattcataga ggggtggagt tttaactgta aggtgctaca 1620
atgcccctgg atctaccagc ataaatatct tctgatttgt ccctatgcat atcagttgag 1680
cttcatatac cagcaatata tctgaagagc tattatataa aaaccccaaa ctgttgatta 1740
ttagccaggt aatgtgaata aattctatag gaacatatga aaatacaact taaataataa 1800
acagtggaat ataaggaaag caataaatga atgggctgag ctgcctgtaa cttgagagta 1860
gatggtttga gcctgagcag agacatgact cagcctgttc catgaaggca gagccatgga 1920
ccacgcagga agggcctaca gcccatctct ccatacgcac tggatatgtgt ggatgatgct 1980
gccagggcgc catcgccaag taagaaagtg aagcaaata gaaacttgtg aagtggaaat 2040
gttctaaagg tggtgaggca ataaaaatca tagtactctt tgtagcaaaa ttcttaagta 2100
tgttattttc tgttgaagtt tacaatcaaa ggaaaatagt aatgttttat actgtttact 2160
gaaagaaaaa gacctatgag cacataggac tctagacggc atccagccg aggccagagc 2220
tgagccctca gcccgaggag caggctccag gcctcagcag gtgcggagcc gtcactgcac 2280
caagtctcac tggctgtcag tatgacattt cacgggagat ttcttggtgc tcaaaaaatg 2340
agctcgcatt tgtcaatgac agtttctttt ttcttactag acctgtaact tttgtaaata 2400
cacatagcat gtaatggtat cttaaagtgt gtttctatgt gacaattttg taaaatttg 2460
ttattttcca tttttatttc aaaatataca ttcaaactta aaattaaaaa aaaaaaaaaa 2520
aa 2522

```

```

<210> 56
<211> 6246
<212> DNA
<213> Homo sapiens

```

```

<400> 56
gacttaaaact ctggggcccg ggaggccgcc ggttttctcc ccgcttgccg ggggtggctct 60
cttccctttg tcggaccaa gaagtaaaca ctgtgtggag agggactgac gtgtttggag 120
ggaaatggga atgtacacga taattaaaga gtaaagttgt gctcaacgct gtttacttct 180
aattatttcc tgattcaca attaatTTTT gcaattcaca acttcaagaa tacttgagct 240
attggattca atccatagta atctgcaaaa gaagagaagc agaattatac ctagaagtct 300

```

actaatggac agttagtcac ccacctacat gttgagattc ctgacattca gacaactgac	360
ttgtaactga cttataactg acttgtaata cactgctact atatcaaacc gacaatgaat	420
tggaatgaaa aaccaaagag tgctacatta ccaccactgt atcctaaaag ccagccacct	480
tttttgcacc agtctttaat aaaccaaatt accacaacat ctcagagttc tttcagctat	540
cctggaagta accaagaagc atgcatgtat cccggttaatt caaatccaat ttcacagcca	600
ctgctgaata tccaaaatta tcctcaacaa atttctgttt ctgatatgca taatgggaca	660
gttgtggcct cacacacttc agtagaaaga ataacatatg caaatgttaa tggacccaaa	720
caactaactc acaatttgca gatgtcttca ggagttaccc aaaacgtatg gttgaactca	780
ccaatgagga atcctgtgca ttctcatata ggggcaactg tatctcatca aactgatttt	840
ggagctaacy tacccaatat gccggcacta cagagtcaac tgataacatc agatacctat	900
tctatgcaaa tgcagatgat cccttctaata tctacacgac ttctgtagc ttaccaagga	960
aatcagggac ttaaccagtc tttttcagag caacagggtg attggacaca acagtgtata	1020
tctaagggac tgacttaccc agattacaga ccacctccaa agctataccg ttactcacca	1080
caaagctttt taccagattc taccattcaa aaacaaaact ttataccaca tacatcattg	1140
caagttaaaa atagtcagct tctaaattct gtattaactt taccatcaag gcagacctca	1200
gctgtaccat cacagcagta tgccacgcaa actgacaaaa gacctctcc tcctccttac	1260
aactgtagat atggaagcca gcctttgcaa agtactcagc atattactaa acacttgtct	1320
atggaagttc ctcagagtcg agaaatgctg tcacttgaaa taaggaccag ctttcaacag	1380
cagtggcaaa accctaataa aaatgtcagc acaattggaa atttcactaa cttgaaagta	1440
aataccaaca gcaaacagcc ttttaacagt ccattagat cttctgtgga tgggtgttcag	1500
actcttgctc aaactaatga agagaaaata atggattctt gcaatccaac ttcaaataca	1560
gtactggaca caagtgttgc aaaagaaaag ctagtaaggg atattaaaac attagtagag	1620
ataaaacaga agttttcaga acttgcaagg aaaattaaaa tcaataaaga tcttttgatg	1680
gcagcagggt gtattaaaat gactaatact tcttatagtg aaccagctca gaattctaaa	1740
ttgtctctaa aacaaactgc caaaatccag tctggacccc agataactcc agtaatgcca	1800
gagaatgcag agagacaaac accaacagta gtggaatctg cagaaacaaa taagactcaa	1860
tgtatgttga attctgacat tcagggaagtc aattgcagaa ggtttaacca agttgattct	1920
gttttaccaa atcctgtcta ttctgaaaag cggccaatgc cagaccatc tcatgatgtg	1980
aaagttctca cttcaaagac atcagctgtt gagatgaccc aggcagtatt gaatactcag	2040

ctttcatcag	aaaatgttac	caaagttgag	caaaattcac	cagcagtttg	tgaaacaatt	2100	
tctgttccca	agtccatgtc	cactgaggaa	tataaatcaa	aaattcaaaa	tgaaaaatatg	2160	
ctacttctcg	ctttgctttc	acaggcacgt	aagactcaga	agacagtatt	aaaagatgct	2220	
aatcaaaacta	ttcaggattc	taaaccagac	agttgtgaaa	tgaatccaaa	tacccaaatg	2280	
actggtaacc	aactgaattt	gaagaacatg	gaaactccaa	gtacttctaa	tgtaagtggc	2340	
agggttttgg	acaactcctt	ttgcagtggg	caagaatcct	caacaaaagg	aatgcttgct	2400	
aaaagtgaca	gtagctgttc	catggaagtg	ctagcaacct	gtctttccct	gtggaaaaag	2460	
caaccttcag	atactgcaaa	agaaaaggag	tgtgataaac	tcagaacaaa	cacaacagca	2520	
gttggattt	caaagcctgc	taacatccac	gttaagagtc	cttggttcagt	tgtgggaaat	2580	
tcaaattctc	agaataaaat	aagtaatccc	tcacagcaga	cagctttgtc	gatggtaatg	2640	
cacaattatg	agtcttcagg	tataaatata	acaaagggaa	cagaacttca	gatagctgta	2700	
gtgtcacctg	tagttctgtc	agagggtcaaa	acattgtctg	tcaaaggaat	aacacctgca	2760	
gtgttacctg	aaacagtgtg	tcccggttatt	aaagaaggca	gtgtttgtag	ttacaaaaat	2820	
caattggcag	aaaatgcaaa	ggcaactgct	gctttgaaag	ttgatgttag	tggaccagta	2880	
gcaagtacag	caacatcaac	caagatTTTT	ccactaactc	agaaggaaaa	gcagaatgag	2940	
tcaactaatg	gtaattcaga	agtcacacct	aatgtcaatc	aaggaaagca	taacaaatta	3000	
gagtcagcta	tccattctcc	tatgaacgat	cagcaaactc	cacaggagtc	aaggaatagt	3060	
actgttgtga	gtagtgatac	attacagatt	gacaatattt	gttctctggg	tgaaggtgat	3120	
acctcttaca	attcccaa	at	agcaaagata	ttcagctctc	ttcccttgaa	aatgggttgag	3180
ccacagaaac	cttctctacc	caatcagcaa	gggattggca	gcagagaacc	agaaaaacaa	3240	
ttagataata	ccactgaaaa	taaagacttt	ggttttcaaa	aagataaacc	tgtacagtgc	3300	
acagatgttt	cacataaaat	atgtgatcag	tcaaagtcag	agccaccctt	agagtcattc	3360	
tttaacaatc	ttgaaacaaa	cagagttatt	ctagagaaaa	gtagtttgga	gcatgccact	3420	
gaaaaaagca	cagctaacga	tacgtgctcg	tcagctgcta	ttcaggagga	tattttaccct	3480	
caggaaatag	atgcatccag	caactatact	ccccagatc	ctgcaagaaa	tgaaatccac	3540	
agtgataagg	cacctgtctt	atacctacat	gaccagctgt	cagaacttct	aaaagagttt	3600	
ccttatggca	ttgaggctgt	gaatacacgt	gaagggtctg	tgggccagca	aactacatac	3660	
cagacctcag	aagatcaaac	tgctgataaa	accagttctg	actccaaaga	cccagcagat	3720	
caaatacaaa	ttacaatatt	aagctcagag	caaataaaag	aaatatttcc	tgaacaggat	3780	
gatcaaccct	atgtagtaga	caagttggca	gaacctcaga	aagaagagcc	catcacagaa	3840	

gtagttagcc agtgtgacct gcaggcacct gcagctggac aaagtcgtga ttctgtgata	3900
ctggactctg agaaagatga tatccactgc tgtgcattgg gctggctctc catgggtttac	3960
gaaggagtac ccagtggtca gtgtaattcc atcaagaact catcttcaga ggaagagaaa	4020
caaaaagagc agtggttctcc ttggatacc aacagttgta aacaaggaga gagaacttct	4080
gatagagatg tcaactgttg tcaatttaag agccttgtaa ataatccaaa gactcctcca	4140
gatgggaaaa gtcattttcc tgaactacaa gacgacagta gaaaagatac acccaaaaaca	4200
aaacataaaa gcttaccaag gacagaacaa gaattagttg ctggtcagtt ttcactctaaa	4260
tgtgataaac taaatccctt gcaaaatcac aaaagaaaaa aattgaggtt tcacgaggta	4320
acctttcact ccagtaataa aatgacagca tcttatgaac aagcttctca ggaaacccga	4380
cagaagaaac atgtaacaca gaactcacgt ccactaaaaa caaaaacagc ttttttgcca	4440
aataaagatg tgtataagaa gcatagttct ttgggacagt cattatcacc agaaaagata	4500
aaattgaaac tcaaatcagt tagcttcaaa caaaaacgaa agttagacca agggaacgta	4560
ttagatatgg aagtaaagaa aaagaaacat gataaacaag aacagaaagg aagtgtggga	4620
gctacattca aattaggtga ctctttgtca aacccaaacg aaagagccat tgttaaagaa	4680
aagatggtat caaatactaa gtctgtagac acgaaagcga gttcatctaa atttagtaga	4740
attctaactc ctaaggagta ttacaaaagg cagaagcata aagaagctct gagtaataaa	4800
gcacgaaga aaatctgtgt gaaaaacgtg ccatgtgatt ctgaacatat gagaccaagt	4860
aaacttgccg tgcagggtga aagttgtggg aaatcaaatg agaaacacag cagcggcgtg	4920
cagacctcta aagaatcatt aaatggcttg acaagccatg gtaaaaacct caaaatccac	4980
cattctcagg agtctaaaac atacaacatt ctaaggaatg ttaaagaaaa agttggtggg	5040
aagcagcctg ataaaatatg gattgataag actaaattag acaaattaac caatataagc	5100
aacgaagctc aattcagcca aatgcctccc caagtaaagg atcaaaagaa attatatctg	5160
aatagagttg ggtttaaatg cactgaacgt gaaagcatth ctctcaccaa attagaaagt	5220
tcaccagga agcttcataa agataagaga caggaaaata aacataagac ctttttaccg	5280
gtgaaaggta acacagaaaa atcaaacatg ctggagttta aattatgtcc agatatctta	5340
ctaaagaata caaactctgt ggaagaacgg aaggatgtaa agcctcatcc taggaaggag	5400
caagccctc tgcaagtttc aggaataaaa agtacaaaag aagactgggtt aaaatttgtt	5460
gctacaaaga aaaggacaca gaaagacagc caagagagag ataatgttaa ttcaagactc	5520
tcgaagagaa gcttcagtg agatggattt gagatgctac aaaaccagc aaaagattca	5580

```

aaagaaatgt ttcaaacta caaacagatg tacctggaga agagaagcag aagccttggt 5640
agcagtcctg taaaataatt acaagatgtg gttttgtaat tgccactggg aaatttcttt 5700
ccttttctgt tcaaaatatt tcgctgaaac taatgagaaa tgccatgata aagatttctc 5760
agagtttggt tcccactttc attgtatttc attgaaagtg cttaattaaa atggcttgag 5820
aactttgggt agccatgtgt aagaaatgga tggatttcac cggggaaaca aggtatttga 5880
atttctactt tattgaacca gatttaccat tattttaaaa ggaatgctta tacaaatcaa 5940
tttgaaattc taccatctt gagggaggac cgttcctcag ttaaggactt gtttatttaa 6000
atgggactgt aaatatgttt tggtttctaa gctatattag caaaatttat ttttcaaaaa 6060
tgcccactgt gatgtgaatg tcaaaatata ttcttaagtg ttttataact aattgtaaac 6120
tttttttcag aagtcttatt ttatacttgt gaaactgaac acaatttttg gacaacgttt 6180
aaacattact tttcatactt gaaataaaca tttatttttt aaaaaactaa aaaaaaaaaa 6240
aaaaaa 6246

```

```

<210> 57
<211> 807
<212> DNA
<213> Homo sapiens

```

```

<400> 57
gcgctcgggc tgccgctggc tcttcgcacg cggccatggc cgactccgag ctgcagctgg 60
ttgagcagcg gatccgcagc ttccccgact tccccacccc aggcgtggta ttcagggaca 120
tctcgcccgt cctgaaggac cccgcctcct tccgcgccgc catcggcctc ctggcgcgac 180
acctgaaggc gacccacggg ggccgcacgc actacatcgc aggcctagac tcccgaggct 240
tctcttttg cccctccctg gcccaggagc ttggactggg ctgcgtgctc atccgaaagc 300
gggggaagct gccaggcccc actctgtggg cctcctattc cctggagtac gggaaggctg 360
agctggagat tcagaaagac gccctggagc caggacagag ggtggtcgct gtggatgatc 420
tgctggccac tggtggaacc atgaacgctg cctgtgagct gctgggcccgc ctgcaggctg 480
aggtcctgga gtgcgtgagc ctggtggagc tgacctcgct taagggcagg gagaagctgg 540
cacctgtacc cttcttctct ctctgcagt atgagtgacc acagggcctc ccagcccaac 600
atctccagct ggatcccagg gaaatatcag ccttgggcaa ctgcagtgac caggggcacc 660
ggctgcccac agggaaacaca ttcttttgct ggggttcagc gcctctcctg gggctggaag 720
tgccaaagcc tggggcaaag ctgtgtttca gccacactga acccaattac acacagcggg 780
agaacgcagt aaacagcttt ccacaaa 807

```

<210> 58
 <211> 673
 <212> DNA
 <213> Homo sapiens

<400> 58
 gcgctcgggc tgccgctggc tcttcgcacg cggccatggc cgactccgag ctgcagctgg 60
 ttgagcagcg gatccgcagc ttccccgact tccccacccc aggcgtggta ttcagggaca 120
 tctcgcccgt cctgaaggac cccgcctcct tccgcgccgc catcggcctc ctggcgcgac 180
 acctgaaggc gaccacggg ggccgcatcg actacatcgc aggcctagac tcccagggct 240
 tctcttttgg cccctccctg gcccaggagc ttggactggg ctgcgtgctc atccgaaagc 300
 gggggaagct gccaggcccc actctgtggg cctcctatct cctggagtac ggggaaggctg 360
 agctggagat tcagaaagac gccctggagc caggacagag ggtggtcgtc gtggatgac 420
 tgctggccac tgggtgatga gtgaccacag ggccctccag cccaacatct ccagctggat 480
 cccagggaaa tatcagcctt gggcaactgc agtgaccagg ggcaccggct gccacaggg 540
 aacacattcc tttgctgggg ttcagcgctt ctctggggc tggaagtgcc aaagcctggg 600
 gcaaagctgt gtttcagcca cactgaacct aattacacac agcgggagaa cgcagtaaac 660
 agctttccca caa 673

<210> 59
 <211> 2840
 <212> DNA
 <213> Homo sapiens

<400> 59
 gtttttgtgc aggaacagcc cctcccgtct ttgtcctggc ggtgagcacc cagggctaag 60
 cttttgaaca ctttctttgt gtttggattc agcccaggca atgcatatct gctttcattt 120
 cttcttgagc ttgaggagct cctgggtgca aatcttgaa aatgaggatc tctgagcctt 180
 tccaggccag ctctttgttt tgtagcagac aattgaggct ttgaaaagga aagtgggtgg 240
 gggcacccca caggtggccc tcatcaccca attgccagtg cctgcaggct gcttcagcag 300
 agggccagag tcaaagagga cttaaaacca gctgtcgttt ctcccttagc ttctgtgtat 360
 gagagaaacg acttctgttt ttcaaagtaa gaacaaggag gaatttgttt ctaaaagaac 420
 attaaaacac aggcctgtgg tctaaaagca aatggttcag caggatgttc agggccttaa 480
 agcacagtca gcaggactca gcatctccca gcacctgctc tccggttgct atggtaacat 540
 catccccaac ccaaccacct tgtccagccg agagacagca atcataagga gggacctcgg 600
 tttccccoga ggatcctggg cttcctttct gaaacgcttg cttctgagct cagcaaccag 660

gaacaccagg ccagcccatc cccagcacct ctgtggagat gagggacaaa gtcctacagt	720
ccctcttcct gttctgatga gaaagggagg gaagaaaaca taccocgagc gcctgcaata	780
tggtcatgac actttcaaaa agcctgtgct atggagtcac gatcagaaac cagagtgtgg	840
agagggtcag cagcctgcct cagagcagcc agctaggcgg ggagtggtaa atttgggact	900
tgtaccagg catgactggc tccgagccca gtgctccact ctatggaatg ttccctgggc	960
ctcagttgct ttcctttcct ttgcaggccg cgggctgctg ccactctggc agctggtgag	1020
ttagctggag ggcaacattc caaagcaggg gcagcatgct gctttcctcc tgtgcccact	1080
cctgcgggga agtccgttga ctcccaccgc tgaagggagc tggcaacacc aggatgaggt	1140
cccaggggac gggagcaggt acccactgtc tgtctacctt ccactggaa aagcacggac	1200
aggccagccc ttgcgggggc aggcagagga cagagttggc tttgcgcggt ctctgcctgc	1260
tgagcagttc caattcctct catgggagaa acaaggaggc agtcgcttgt gcatgttcca	1320
gaagttttac tggggaggag gaagcggaca gaggaagctg tgtgtgcatg tgaaggggtg	1380
ggcaggggtg gagggatgca cgcgtatgtg agcatagcat gtgtgagtac tacacacatc	1440
tccatgcaga agcacaactg ggcagccctg gcttccagct ctgggcttca gcacaacaga	1500
caccagcctg tggctctctca gaagccaggg agaccacatc gggctcagga cgttttaccc	1560
aaagtccaga gtttttatgc ctctccctgg cattctccat aaagaaggga aggtcagatg	1620
acccttaga tctgtgtcat ctgggaattt ccttgggctg gtttagacac gatgccctct	1680
ttttctcagg atagcagata acctgctttg aaagagggct taattctgtg ggtcctaaat	1740
tttctccttt ctctctctct ttctgtgtgt gtgtgttggg aaaatggcaa gtttccaata	1800
ccagcttttg aggaacgatt acgttttccc tccaatttca agtccgaaag accagagccc	1860
tcattccaaa gccccccacc cagatggatt ttttcgtttc atttgtcatc cgtcccatgg	1920
gagggcccca tgtctcctca gaacccatcc tggaggcagc aggtcgggta gagtgagttt	1980
ggcctgctca tgacctocac ccctgagatt gtgaacaagg atgtctgggg cgatgctgag	2040
aatgtttttg aagctgctcc cagatgacgc tgatgatcac accagattga gtgctgcgat	2100
cgccttgagt ccaacctctg cataaacgag gttctcataa acaagttcac tctaccctaa	2160
gctaagtcta tgtgagcaaa cccacttcat cctttgtacc tggagacctg gttacactaa	2220
cctgatactg acctgttcat gtagctggaa tgggtgtgtt catgcagtgt ggaccaagca	2280
atggcatggg gtgtgtgtgt gtgtgtgtgt gtgtctgtgt gtgtgtgttt gtgtatgcgt	2340
tcacacttgt gtgtgtatat gtgcatgtag atgctgcata aatgattttt gatgtcaaag	2400

acaaacacat tccattgttt taaatattct attatgtaaa caatacgcag agggaccata	2460
tctactcttg tcatattatt tgtgatggta aaacatgcat ttgcaataaa ttaagctttc	2520
tgggaaggca agcagtattg gagccaaacg actgtctcgg aacatgtgtg tgttatctcg	2580
gttcatatca agtccaaagc taatggagcc ttccccgcca tccagggagg aacaccagga	2640
ccccggagtt tcttcttagt gctatatttt aaagttgcat tgacgttttc ctcccccttc	2700
ttttgtgcaa gttggaagta gcagtgttct aaaagatggg ttgacgtttt tgctgttggt	2760
ttatgttttt aaaaatgtat ctgctttgtg tttggaaata aaaatctcta ttttgggtcta	2820
tgaaaaaaaa aaaaaaaaaa	2840

<210> 60

<211> 2872

<212> DNA

<213> Homo sapiens

<400> 60

tggctacatg ctctccccgt gatggggcgg gagctgggct ggggacaccc ccgcggcggc	60
gacgtctgct cctctgattc cttcaacgag gacaacactg ccttcgcca gcaggttcgc	120
tctgagaggc ccttcttctc ctccaaccca gaactggaca atctgatgat ccaggcaatc	180
caagtgctgc ggttccacct gctagagctg gagaagggaa agatgcccat cgacctggtc	240
atcgaggatc gggatggcgg ctgcaggag gacttcgagg actaccacgc ctctgcccc	300
agcctcccag accagaataa tatatggatt cgagaccatg aggatagcgg gtctgtacat	360
ttggggaccc caggtccatc cagcgggggg ctggcctccc agagtgggga caactccagt	420
gaccaaggag tggggtgga caccagcgtg gcctctccca gttctggtgg agaagatgag	480
gacttggacc aggagccacg gcgaaacaag aagaggggga tcttccccaa ggtggccacc	540
aacatcatgc gagcctggtt gttccagcac ctctcacacc cgtaccctc ggaggagcag	600
aagaaacagc tggcgcagga cacggggctt accatcctgc aagtcaacaa ctggttcatt	660
aatgcccgga gacgcacgt gcaacctatg atcgatcaat ccaaccgcac agggcagggt	720
gcagccttca gccagaggg ccagcccatc gggggctata ccgagacaga gccacacgtg	780
gccttccggg ctccagcatc agtggggatg agtttgaact cggaaggaga atggcattat	840
ctatagaggc tgatgcggga gagaccacgc ctccggctgt gacccccagc ctcacacctg	900
gctctggttc ccgcctggtc ctctggcttc aggatccac ctccaaaggc ctctccgctc	960
aacgcctacc tccctagggc cctgctggga catggggggc tgagtgccca cccaaggggc	1020
tctcaaggac accggcaagg cctccaggct ctgagccccg cttctgcctt cacctctgcc	1080

tgggacccga gctgggctcc tgggccttgg tccccagaag atggcagcta gggcctcgcc	1140
gcgaggacag agaagggaca ggggtggctgg gcagtcaggg aaggaggggc gcccggatec	1200
gacatttttg agagattctt tcaccctcct gtcccccca cctcccttct ctaatttctt	1260
ctttttttta tgataaagtc ttaaaacaca gaaaaaaaaa agacttcaga gaattaggta	1320
gatgaagcac tttatacagt atatatcttc agcttaaatt tgttttgagt atttttttta	1380
tttttaagta ggcaaagatt taaaattttt tatttttagt aaatgtttga agcaaactaa	1440
aaagacgtgg gcaatattta ccaaaacaaa acagaacca aaaaattgta catcttgatc	1500
ttagcaaata tccttattgt agagacactt aataaagaga tggatattta atatctgcag	1560
ttctgaggta ggggtgtaact tagttctaca ttgtgattta ggaattttta aacctttctt	1620
cttcagggga gaagtgacct aggccctcgag tttagtcta aagccactag tgtacttatg	1680
ctgtcaccta accaccacat gcgacatgga ggcagaggct aaatataggg gctttcttaa	1740
gaaagtgaga ggaaattagc aagcattatt agtgtttgac tactgctatc aagtgaattc	1800
aaaggaaaca ggtttttatg ccatatttaa gttacagaaa ccaggcatgc ttagaatagt	1860
ttctaaggty acagagtgag actccatctc aaaaaaaaaa aaaaaaaaaa gaatagtttc	1920
tagaggttat tggagaatag aaagctaaga aaacttggtt tacatttaca attgaaatat	1980
aattacactt tttactctca gaatattatt cagattagac ttctgtttta tcttttatat	2040
tcttgcatg atataatgcc tgatccttca aagttctttc acatattata tgatcttctt	2100
tatgaaaaaa agtagatgct ttattctgat atattcagtt tcccacttta ggcaaaagtg	2160
gattaataga atgatgaatt caaagtagat gaggaaaatc aggcacagag aagtaaagggt	2220
aggtacagac ccaaattcac acaagataat gacatcacca gcgtttaagt tgatcatcaa	2280
aggctgggct ggatttgtct tgctgtatgt gtcaggaaat ttatacctat tacattttcc	2340
attttctcaa aataagtcac atgattgtaa tgttttagctg caacttttct cctaataaat	2400
agtgtcatga agaattgttat agtgogaagt ttgtacattt cagggtcagt tatacaatgt	2460
gaactcttta tctacgggaa tgagaatgga ggatcattga aggccatgat ataaacaaat	2520
ttgcatgttg aagcctgtat aaaacatggg acagtgagtg aatgccccca tccccaagaa	2580
cactttatac atattaaatg gatatatgat tactgtgcaa aaattcattc tggaaatgaa	2640
catatatattg agcactaata tgtaatgtac atcttctgcc ctaaggagaa aataaatcat	2700
aaaacttggt ttacattcaa aattactttc ccgagcatgt cttagagtaa tctacgtgtt	2760
gatgtatgta aattgtattt taggtaggca aagaaacaag tctggttatt tatgtaaaaa	2820
ctagtcta at aaagtgagtg gctttatcac tttgaaaaaa aaaaaaaaaa aa	2872

<210> 61
 <211> 2106
 <212> DNA
 <213> Homo sapiens

<400> 61
 accacggccc taaggagggc ggaagtcgtc gctccgtgga gcctcctcct ctgcgcgagag 60
 gcgcaaggcg tggagtcgac ggctggagag aagccgggag cgagcccagg cggcagtcctt 120
 gattcccttt tggccagcag tttttaggtc tgtcagtact gcaactgcaag aatggcagat 180
 tttgggatct ctgctggcca gtttgtggca gtggtctggg ataagtcac cccagtggag 240
 gctctgaaag gtctggtgga taagcttcaa gcgttaaccg gcaatgaggg ccgcgtgtct 300
 gtggaaaaca tcaagcagct gttgcaatct gccacaaaag aatccagctt tgacattatt 360
 ttgtcagggt tagtcccagg aagcaccact ctgcacagtg ctgagatttt ggctgaaatc 420
 gcccgatcc ttccggcctgg tggatgtctt tttctgaagg agccagtaga gacagctgta 480
 gataacaata gcaaagtga gacagcatct aagctgtgtt cagccctgac tctttctggt 540
 cttgtggaag tgaaagagct gcagcgggag cccctaacc ctgaggaagt acagtctgtt 600
 cgagaacacc ttggtcatga aagtgacaac ctgctgtttg ttcagatcac aggcaaaaaa 660
 ccaaactttg aagtgggttc ttctaggcag ctttaagctt ccatcaccaa gaagtcttct 720
 ccttcagtga aacctgctgt ggacctgct gctgccaagc tgtggacct ctccagccaac 780
 gatattggagg acgacagcat ggatctcatt gactcagatg agctgctgga tccagaagat 840
 ttgaagaagc cagatccagc ttccctgcgg gctgcttctt gtggggaagg gaaaaagagg 900
 aaggcctgta agaactgcac ctgtggcctt gccgaagaac tggaaaaaga gaagtcaagg 960
 gaacagatga gctcccaacc caagtcagct tgtggaaact gctacctggg cgatgccttc 1020
 cgctgtgcca gctgccccta ccttgggatg ccagccttca aacctgggga aaaggtgctt 1080
 ctgagtgata gcaatcttca tgatgcctag gaggttcttg acatgggacc catctgctcc 1140
 tccagccaac tectgtccct cacatccac catggtggct cctccacct cctctggatt 1200
 tgttcaactct gagatctgtt tgcagagtgg gtgcttagca gacagagtga agctggctgg 1260
 ggggcacagt ggtgtgtagt gctgctgtgt atcaaaagac caaggtatta tgggacctgg 1320
 tttcagaatg ggatgggttt cttcacctca tgttaagaga agggagtgtg tcctgaagaa 1380
 gcccttcttc tgatgttaaa atgctgacca gaacgctctt gagcccaggc atcgttgagc 1440
 attaacactc tgtgacagag ctgcagacct ctgccttgag tctcatctca gcaatgctgc 1500
 cacctcttg tctttcagag ttgttagttt actccattct ttgtgacacg agtcaagtgg 1560

ctcacaacct cctcagggca ccagaggact cactcactgg ttgctgtgat gatatccagt	1620
gtccctctgc ccccttccat cccaaccac atttgactgt agcattgcat ctgtgtcctg	1680
ttgtcattta tgttaacctt caggtattaa acttgctgca tatcttgaca tatcttgaga	1740
ttctgcatgt cttgtaaaga gaggggatgt gcatttgtgt gtgatgttgg atagtcaccc	1800
acgctcagtt tggaccattg gaggaactta gtgtcacgca caaatggggc tttcctacg	1860
cttagaatag ggcttgtctg ccacttttag aagagtcag gttggtgagc atttagaggg	1920
aagcagggca gaactctgaa cgacaatacg tctctctgag cagagacccc tttgttcttg	1980
ttatccaccc atatggactt ggaatcaatc ttgccaaata tttggagaga ttgtgtggat	2040
ttaagagacc tggattttta tttttacca gtaaataaaa gttttcattg atatctgtcc	2100
ttgaaa	2106