

Seq-Listing-P1425.TXT
SEQUENCE LISTING

<110> Life & Brain GmbH et al.

<120> Androgenetic alopecia

<130> P1425 PCT

<150> EP 08 00 6933.9

<151> 2008-04-07

<160> 294

<170> PatentIn version 3.4

<210> 1

<211> 401

<212> DNA

<213> homo sapiens

<400> 1

tggtgctctt cccatagagt tcccgcacaca ccaataacct cctacctctc tacccatggg	60
atttcggact gtttccagta ctccccatca ttgtagagtt tattttctaaa aagcccaccc	120
acgctataga tgaaagctca aacacagagg ctgagaagtc cagggaccta cagctcataa	180
atgacagggg caggacctca gcctgggtcag ttgattcctg gccaaagttg tcgttggccc	240
ttttttgaga agctaaatat aactttgctt acaagttcaa aggaaagtga ttcaaaactt	300
gctccgtcaa atgtcttgat tttaggattc acaggtagaa ataaaatgag tgaaaaagca	360
ctgaattcat gtgagaatgg gttccaaaaa atatagcaga t	401

<210> 2

<211> 401

<212> DNA

<213> homo sapiens

<400> 2

tgaatattgg ataggcagtt agcatggttt gtcattgttc gcaatttctt ttgctttggg	60
agtcaaatct ctgaacacag aagatatttc tagcaatggt aatagtgttt caggaactta	120
tcatacttca ttttttaaaa tgaaaatctc actttgacag tggttttgag aattggatga	180
ggcacatagg tgaaggacct gtaagacttc cctgacgtag tgactcaaatt gatgtcaaac	240
attcatcatc atgacttctg aaaaactgta ccactttcca gcttttggtt ccacttttcc	300
ccttttaaaaa attttagtagaa gtttaagagg tacaagtaca gttttgttcc atggctgtac	360
tgcatagtgg tgaagtctgg actgttagtg taccctccac t	401

<210> 3

<211> 401

<212> DNA

<213> homo sapiens

<400> 3

gtgaaggacc tggccctggc tcagcaaggt tattgcattt aatcttcaca acaggtatta	60
ttatcatttt ataggtaagg cagctctatt tttcttaggg ctagctctac aaataatttt	120
ttttgtctta gaacaagctg atgtccaaaa tttgcttttt atggaaaatc tgtcgttgta	180

Seq-Listing-P1425.TXT

```

aaaatatgac tctggagaca ctttttctga gagcagtaaa taccagaagc ccagccaaaa 240
aacttcagca ccctgttgag attgggaaaa ggcaacattg acttattttc acttaagttt 300
gtgacttaga aaaaaactaa cagtgatggg tttcttcttc tctgttaggc ttgtggctgc 360
aaattctttg catggccggt tatttcactg aagcgaatga t 401

```

```

<210> 4
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 31
<223> /replace="t"

```

```

<220>
<221> variation
<222> 285
<223> /replace="t"

```

```

<220>
<221> variation
<222> 349
<223> /replace="g"

```

```

<400> 4
tcttccagaa aactgcctgc aagcaatttc cttaatcggg ttgctaaggg caaccccaaa 60
gaaacaacat accaagctat ctgtctgtcc atccgaatcc caaaagcttt ccttgtgctt 120
cctgtcttga ccaaagaggc atttgaggca catgtgagag aacagctttc cagaaaccac 180
acttgagtcc acagcagagc ggaaggggca ggaggcatca ggaccatttc cagatttctc 240
tctggccctg attgtctaga ttgcatcca atcactgcaa gagtgataac aaaagtgtgt 300
agaaagattt gggtttcaca cagagttatg aaaacaaggt agaagcctca tgtcttcatt 360
tcccatgaaa tcttgtgggt gtaaatgaaa catgttttag t 401

```

```

<210> 5
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 5
cagaactggg aaaaagcaaa caataaatgt ccattgttta agccctccag tctgtggtat 60
tttgttacgg cagcctgcgc taagacacca gccaattttg tttctgtttt ccctccctga 120
agtcagttag gatgggagct ctctaggtag cagtgtgagg gtctgaggga gaccaccgag 180
ggacatgggt ggagagggac ggtcatgggt ctgagaggcc agcaggggac agatcatgcc 240
tgcttttagt gacacagtga ggggctgata cttcaagatc tgtgggaatg ggagcgggag 300
cccagggagg gctgcaggga aggacttggc tctggctgct gtggagggag agcaggtggg 360
gggaaggcag ggcaaaaagt gaggagtcca caagagacac t 401

```

```

<210> 6

```

Seq-Listing-P1425.TXT

<211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 145
 <223> /replace="t"

<400> 6
 ttaggggagt tttgtgaact tacttcatgt gccattgaat ttctaataagg tgatatctaa 60
 ttttaaattg tagtttagag aaaaaatgtt gctattctat tgctgaaaca taattgatat 120
 ataaggagag tttggctttg aatacatttc tttctctgta tatatttatt ttagatttca 180
 tgagcgagta tttgattctt taaatattga ggacattgca aaacatgatt ttactggatt 240
 tttcagaatc gtaaagaaga ataattcttt tatagtttag taactatcta aaataattta 300
 gacacttttg accttatttt ctgatgttt ctttgagatg aggaggtagt aattgcaatt 360
 tcactttttc tattgaataa aaaactaaat gaagtgtatg a 401

<210> 7
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 340
 <223> /replace="c"

<400> 7
 tttttcttga gcaaggatat tataagtaag taaataaggg cataatgtca ggtaaactga 60
 atggctggaa agtggcaacc aggatttagt tatttggcat tatcacagg ttttcagaaa 120
 cattcaattt ttagcaaaaa acaagtcccc tccaaaattc aatctactgc aattgatttg 180
 cacgtggttt aatgctgtta ctagtctata aataatggac tcaaatttt gaagttgtag 240
 atgctttcat actgttttaa acaaacataa cttatatgca aatggttaag aataccagaa 300
 acattgcaag aatgctcttt ttaaatcctg aagatattgg tttattttta agcatcaagg 360
 atgattttaga tttttggaaa aacagagggt gcatgaagat t 401

<210> 8
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 8
 taggcgctga tttttgaaaa tgcaatcttt atccagagta tttgacaaat gtcagaatg 60
 ctcagaaatg tattaatata cagccagaca gctgtcaaag cagcaggctt ctcccctgga 120
 gagttcatta acctcatttc cacttgctga gtaaggagct ctgtcttgcc tgagagggac 180
 cacggtacca aaatgtacgg gtttcaagtg aggagtgaga aaaataactg aagtatgaga 240
 aaataaagat ttcttgataa ggcccaaaga ctagctcatt tcctagtatg tgttttaaat 300
 gcgcgttttc tgtttttttt acttacctat gcattttatct attcatctct tttcaaaatg 360

Seq-Listing-P1425.TXT

ctttgaaggt gcaatgatga tatgctattt tatgaactaa t 401

<210> 9
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 275
 <223> /replace="t"

<220>
 <221> variation
 <222> 398
 <223> /replace="t"

<400> 9
 tgaatgtgtg tgtgtatgtg taagtgcacg tgcacatgaa tgactacgta tgtttatgca 60
 cttgtgcatg catatacatg tacgtgtgct tgtatgcatg ggtgtgcatt atgtgcgtgt 120
 ttgcctgtgt gtgcatgcat gcgtgtgtgt gtgtgtgtgt tctctgtgga gggaggagac 180
 tggagattct cttccccaac gttcgaggcc agtttgccaa aaatcttggg gctaactgta 240
 tgtccagggt acagatccac acgcaaatgc agaccaaca aactgaggc tcactctttg 300
 ggtttctccc catcttcttc accatgactc agttctccaa gaaaaatggt gttgctactt 360
 tcaggaacag tccaggatga gagcttaagg tagagtccgg a 401

<210> 10
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 266
 <223> /replace="t"

<220>
 <221> variation
 <222> 341
 <223> /replace="t"

<400> 10
 gttcacaagg caaataaata acagatgttt gagattatgg atatgctaata tacccttacc 60
 tgatcactat gcattatatg tatcgaaaca tcactatgta ccccatgaat atgtcaatta 120
 aaaaaatagt ttcaccaaga cccactaaat caacagaatt ttgtggcaac attatgcaga 180
 ccccatgtt gagagtaaac gctattttgat atgatatcaa gttccatcag tttgcatcag 240
 atcatcagat gagagggcca taagcgtctt ctgttctcat aattatgcag atttattgtt 300
 ttgaaacaaa atcaacttct ctctaaaata agcaaggaca ctggggcaac caactattct 360
 cagagaagga gtgtttttta tttttttcag gattcttagg a 401

<210> 11
 <211> 401

Seq-Listing-P1425.TXT

<212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 50
 <223> /replace="t"

<220>
 <221> variation
 <222> 105
 <223> /replace="g"

<220>
 <221> variation
 <222> 233
 <223> /replace="t"

<400> 11
 taatacacac acactagaaa cctaattggt tttgaatctt gagcaattgc ttagaaatgt 60
 tcatatgatg aaataaaatg ctttgtattg caaactttta tttaagaatg agagcttctt 120
 aattccgggt cgttggacaa tatccaaagt caaatggtag agacatatga aagatgggta 180
 gtaattaatc acgcctcacc ggtgtgccag gaaagtaaac tcaccaggag ccactctcag 240
 tgccttatca aattactaaa acttgacttg ctttcctgga ttagtaaagt gatacactgt 300
 tgattctgga aattcgtaac ttaagatgat tcctctgcat agtattcagc aaaccataag 360
 atgggtatttt gataattttg agtttcatca aaatacagat t 401

<210> 12
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 18
 <223> /replace="t"

<220>
 <221> variation
 <222> 73
 <223> /replace="g"

<220>
 <221> variation
 <222> 169
 <223> /replace="g"

<400> 12
 tgaatcttga gcaattgctt agaaatgttc atatgatgaa ataaaaatgct ttgtattgca 60
 aactttttatt taagaatgag agcttcttaa ttccgggtcg ttggacaata tccaaagtca 120
 aatggtagag acatatgaaa gatgggttagt aattaatcac gcctcaccag tgtgccagga 180
 aagtaaactc accaggagcc tctctcagt ccttatcaaa ttactaaaac ttgacttgct 240
 ttcttgatt agtaaagtga tacactgttg attctggaaa ttcgtaactt aagatgattc 300
 ctctgcatag tattcagcaa accataagat ggtattttga taattttgag tttcatcaaa 360
 atacagatta ttatcctgcg tgagtccact gtaatcttag c 401

Seq-Listing-P1425.TXT

<210> 13
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 13
 aggaatgagt tcttgatgac tccatgtgtg tcaacaagca gtttacgact tctcctttaa 60
 aacagaaaac gaacaagagt gtagttttga aaagtaaatt tatttattta tttattttta 120
 cttaggctta tataattttc tgttctgtaa gagagatctt ttagggccca gggaattatt 180
 ccataccttg gggacccggg gaaagactgc gtacctggcc aagactgatg atcaaccaag 240
 tgggatgctt tatttcctct ttagttagaa gtttcaggat caaagtgagc ctttgagcta 300
 tttgtcattt tccctctaaa tatttttgtc acacacacac aatttgtata gtggcttctt 360
 cagaagcctg tggcaatcct tcctggctgt gaaaacagat g 401

<210> 14
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 348
 <223> /replace="g"

<400> 14
 aacaacttct ggatatggat aatgttaatt cttgtccatg atacaattgg agaaattgag 60
 gcttaaagag atgaagtcac ttttcaagtg ctacatagat gctaagtgat aaagaagaaa 120
 ttcaaaccce ggactcttga ttgcaggccc ccagctctta tcacagacac tatacaaaca 180
 ggaatacttt gtgttaccct gtgttaatgg ttctcttatt ttgctgtgca tcagaatacc 240
 ctggaaggat gactaacata cagattgcca ggctcagcac ctgctgtgtc taagccagga 300
 tatctagggg catttctagt aagttccagg taatgctgat gctgctgatt tagggacaac 360
 actttgagaa atatggctgt gtattatggg tctatttgaa c 401

<210> 15
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 15
 ccctgaggcc ctcagagtca tacacagagg aagagcttgg gtcagacttt ggccttttct 60
 gcttgtttca tcaaaacaga aaccacaagc tttatcacag cctcaaaatg cattttctct 120
 cttcttttggg gttaaaaaaca aatttttctt caaagaaagc atattgagat ttttaagtca 180
 agttcacaat taaaaaaaaa ttttcttgaa agatgtgtgt attgtcttaa catgggttcc 240
 ctttgttaac acctccagc ggatttattt ggcatgaggg atctaggggc aggaccttg 300
 acttcttctt agacaacctt acctctttgg tccagaacta tctcaagggt ctgctaccaa 360
 catgttagaa gcaaaaggcc caggaaacaa cccagtcact t 401

Seq-Listing-P1425.TXT

<210> 16
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 378
 <223> /replace="c"

<400> 16
 gaattgaata accatcataa ggaaacaata aaacatgaag tgactgagac cagatgatca 60
 ccactgggca cacgtgggtct ctgtagcagg ctcaggggagc ccagggttgg ctttcagttt 120
 cctgcaacac agagcagtcc cttcagcact ctgccaataa ggatcccatc ggттаатgag 180
 acgagcttca actaactggc ggaggctcgg aggggtggggc acccacgtta cattttctcc 240
 ttgcccacaa ctctttgaat tttagtctgg ttgtcaattg ttctagcatc tcttccccct 300
 agtgtgctgt ttctccccctc ataaaaacag ctacagagct gaggtctgaa atatctggag 360
 tatataaaga tggtgaggat tggagggggt catggtgctc t 401

<210> 17
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 319
 <223> /replace="g"

<400> 17
 cttgagtttt aaaagttgtc agaagaattc tgagaagatg atagagtagg aaataccaga 60
 aatccctctc cccatctaga caataatagc attggcaata tctgtctgac atgattattt 120
 tgggattctg gagtctattg aatatttgca acttctaggg gaaggcttgg atggtaaatt 180
 gtttaatttt gatcattttc tgctcctagc acagtagctg ctacctatct ttcacctctg 240
 gaccctcctc tcttgagcag gcagcatgca tgtgttcctg gagaagtttg cacacagctt 300
 gttggaggca ggggtgggcaa aaggatcctg ccctccaaat atcagggatt tgtactctga 360
 ctgctgatgg ctgcttctga tcacaggggt gctggcaatg a 401

<210> 18
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 265
 <223> /replace="t"

<220>
 <221> variation
 <222> 361
 <223> /replace="g"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 366
 <223> /replace="t"

<400> 18
 acagattaaa tccctatttg aaataaaagt agctgtttac tcatgtaaat gcattgtttt 60
 tccttgacta cttaaaggca aacagattaa aggacatgga ttgtctaaag aggctttggt 120
 gaagagtatg ttgaaattcc tttttttttc cctactgcaa tccttttcac caattcattt 180
 aggcttttcta tggcttttta gagatgagag agaaaagttt ttgtttctaa ttaacaagggt 240
 ttcacaagca ggcagaggca ttacagtttc catttaaaaa gaaagaaaac ctagaaaaat 300
 ggtgacatgt tcctccaccg gcaggatggg ggtaagggac aactttgggc atgccaagat 360
 actttcttca ctgagagatt tatttttaaaa tattacttta t 401

<210> 19
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 137
 <223> /replace="g"

<220>
 <221> variation
 <222> 297
 <223> /replace="g"

<220>
 <221> variation
 <222> 302
 <223> /replace="t"

<400> 19
 tgactactta aaggcaaaca gattaaagga catggattgt ctaaagaggc tttggtgaag 60
 agtatgttga aattcctttt tttttcccta ctgcaatcct tttcaccaat tcatttaggc 120
 tttctatggc ttttaaaaga tgagagagaa aagtttttgt ttctaattaa caaggtttca 180
 caagcaggca gaggcattac tgtttccatt taaaaagaaa gaaaacctag aaaaatggtg 240
 acatgttcct ccaccggcag gatgggggta agggacaact ttgggcatgc caagatactt 300
 tcttactga gagatttatt ttaaaatatt actttataag caaaagggca atctatcatt 360
 ggattttcca acaccatggt ggtgttttaa ttaaaatagc a 401

<210> 20
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 378
 <223> /replace="g"

Seq-Listing-P1425.TXT

```

<400> 20
ttgcctccaa gttctggcaa ttatgagtaa agctcctgta aacattaatg tgcaggtttt 60
tgtgtggact taagttttca actcctctgg gtaaatacca ggagcaccac tgctagattg 120
tatggtaaga ctatgtttac ctttgtaaga aactgccaaa ctctcttgca aagtgatggg 180
attattttac atttctataa gcaatagatg agggttcttg ttcctcttca tcttgccagc 240
atttggtgta gccagtgtct tggatttttt tccacagaat gatattttta catatccctg 300
aacaagggat gatgtttaaa attcttagca atgagtatca ccagggcagg agctcacaga 360
acagatgtgg atattcaagt gaagattggc tgatcactgg c 401

```

```

<210> 21
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 23
<223> /replace="t"

```

```

<220>
<221> variation
<222> 27
<223> /replace="g"

```

```

<220>
<221> variation
<222> 282
<223> /replace="g"

```

```

<220>
<221> variation
<222> 371
<223> /replace="t"

```

```

<400> 21
agtgtgctt gatgcctatt acctttatgt aaagacacag ccagctcacg tgagctctta 60
ggaaggggga tagagaaata aataccctga cctcatcttc ctgccctctg ggctgctggc 120
ctccaaacca gaagcagggc actggagctt accaacaagg tacacaaagg ctggcatcct 180
ggagctcaga gcagaggaga ggaggtcaga cagtggatct agaggggcag acaaaaatat 240
ccagaacaag tttcactctc catgggcctg aactagtggg tacaattgct ggaaggtaga 300
aagtgttagg ggggtgttcag gtatgggatc cagatgaagt gggagagaat tttagtatgc 360
tttgtgaaga cttcccatga tttgaaattg tgtaaggact g 401

```

```

<210> 22
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 22
ccagagttcc catgattctg cacagaggaa ggttctcata gtaaggatct gatgctgtgt 60
ctgcaggctt ggcttggcca tgggagtatg ctctgtccat atgcagaagt cactcctgga 120
gcagctctca accagtgact gagagataaa taacctggct tcctcaccct tcaggtgagc 180

```

Seq-Listing-P1425.TXT

```

tgtgttccac acagtctacc ggattcctcc aggggggatcg agcctcagct gctcaattat 240
tacctcagta ataacttact aattaatgca cctgggtgttc actcctcttc tccatttcac 300
ctctccgttt acctgcgtgc ttcctgggat tgcatctcaa aatgaactaa ggaagtgaaa 360
tccttacctt agagcgggaat tctgagggaa acccaaacta a 401

```

```

<210> 23
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 173
<223> /replace="t"

```

```

<220>
<221> variation
<222> 240
<223> /replace="t"

```

```

<220>
<221> variation
<222> 280
<223> /replace="g"

```

```

<400> 23
tcctttgtaa gtcttttgct cattcatcac caagggttaga agtcatttct ctgtgaaccc 60
ttccctatca gagcaggctt gagcatgtgg tgtccgttca gtgggggtaa tgtgtgggca 120
gctgaagtct gattcgtacc ttccagacca aaagaaaggc actgggtcca gcgtagtgct 180
ccatagcaga aacatggctc ggagctcagt ttaaagggtg tccttgaatg aggccaatcc 240
tttttggggg aggggaaggg gaaggagggt ctcccaaccc ccgccttttt tatttgagaa 300
agaatctcat tctgtcacc aggctggagt gaagtgggtg gatctcaact cactgcaacc 360
tccacctcct ggggttcaaga gattctcctg cctcagcctc c 401

```

```

<210> 24
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 24
gtaatcactg tgatctggga gatgcgtttg gactggaccg gccagtgagg ggcctaccta 60
cctgcctaga tgaaaactat cacttgcaca gaaatacatg gaaagatgaa gaggcataaa 120
gttaatggag attaattgta ccagctttgt aggagcacag gaataataac catttatgga 180
acaaatatatt ctatgtattt tttttcaaac tgtaattaag ggtaccattg tccccaattc 240
tttacccttc cttttatctc tatcctttgc caagtgactt gcagtcccc acctctatgg 300
gaggagtata tgtcctttat ccttgactct gggcgtgacc ttgtgatttg ctttggccaa 360
tgacaccaag gggacagtga cagtgttcca gttctgatcc t 401

```

```

<210> 25

```

Seq-Listing-P1425.TXT

<211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 74
 <223> /replace="t"

<220>
 <221> variation
 <222> 232
 <223> /replace="g"

<400> 25
 ttttatgtat caacaattta agttctactg cttaagatt atatggacat taaatgtaca 60
 gaaaaataga aaccaacaaa agataaataa attaaatata tttttaaaaa agtctcgaga 120
 gttgtggtgg cttaatatgg ccgtgagcta atgccttgag ggctactctc tctggagtgg 180
 gaatggagct cttagtaatt cgacagtttt ggccagtggc ttgtcacacg gattgtgcat 240
 tcacctggct ttaggaggaa gaggaggcat ggagccctg ccttcactct cctctttact 300
 ttgccctcac tatcactgtt aacttcgatt catggatgct tttcagggat ttttttttct 360
 aagccaccta gccaattcga ggggtttagt gtacttaaaa c 401

<210> 26
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 237
 <223> /replace="c"

<400> 26
 ggattttttt ttctaagcca cctagccaat tcgagggggt tagtgtactt aaaaccagat 60
 agtataatcc ataaacccac taaattgggc acatgtgagc tgcaatatgt cacaagatgc 120
 agaaaaccag ccctgagtga gggcactgcc ttccgcagct gtcctctgga tctttcctgt 180
 aatgtcagt acacatgacc gctggcatgc agcctgctaa gggacgggtg ccatctgcat 240
 atcaaccaag acaaaagcct ggctcatcat ttatttagag aaagcaaaca taaatggaag 300
 aaattatatt ttcctcctat tccatagttt atcatgtctt gccccacctg ggtagtgtca 360
 cttgtcctga agatggtagg agtgagggaa aagaggtgag c 401

<210> 27
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 89
 <223> /replace="g"

<220>
 <221> variation

Seq-Listing-P1425.TXT

<222> 308
 <223> /replace="c"

<400> 27
 aatggatgta tggagatggt tctctccagc aaagataagg aaatggctgg aagactgcga 60
 aagaatagat gtgccacttt ggaagttgac ataaaaatga atgatatttt tactttttgg 120
 aaagccaagc aggtcccaga gtcgtggggc agtacttggc ctcatctctg aggccaccca 180
 ttctgctgct ggcagccaca gtgatgtacc cttggcacta tgtcgtctcc cttacttggc 240
 atcctcagtt tttctaaact catgggtgag agacgaatga cgtcagaggc ccaaaccctt 300
 ggatgctgat ctaaaagcat caaccaaacc ccaacaccgc agcttcgtaa gttcccattt 360
 gaagcaggag cagtttttat agcaacagac aaaggattgc t 401

<210> 28
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 24
 <223> /replace="c"
 /replace="g"
 /replace="t"

<220>
 <221> variation
 <222> 153
 <223> /replace="g"

<400> 28
 ctaagacagt cttttacaat ctaacaaaaa cttttctgct gtggaagttc tgtggaaagg 60
 gtcacagatc atgtgcagtc acacaacact ctttggatta tctactgtcat gaaggagcaa 120
 tgggggagac caactcctcc acgcagggct caagatgtgt gcatggtagg ccaagagggc 180
 aagtgggtgg ggaggtggaa ggggtcagga aggaggcaca gacaccgtca aagcttaagg 240
 agaacggacc gttgacacat ggaaatggat actgtgacac ttagatttat cgtcaggcaa 300
 actgttcacc acaaacccaa agttcctcta acaaatgcct aggaaaatct tccagaagtt 360
 ttgaggatct ggtgaccata ttttcagaat caaaagtgg g 401

<210> 29
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 137
 <223> /replace="c"

<400> 29
 taggtaaata tttacaaact gaagggtcaaa cacaaatgtc tactttacaa ctactatact 60
 gcattcataa tttctctcct cattttatac tctgatgaaa taccaacttg gtcattttctg 120

Seq-Listing-P1425.TXT

```

tgcattgtca agaggggtcga agtcgaagca gaagcaagca gctgggctggc ttagcttatg      180
gttcctcttg cacaggaaag tggtgagagt cattattctt attatccagg agttaacgga      240
tttttgcatt actgggctga gtgtatgttt attttctggc ccttgataat tactgtattc      300
ccattttcaa tatgaatttg tttctatcca atggatgggc aacagtagcc actgtaattc      360
tttttgaggg gctatatatg caccattatt tttcaaactt g                          401

```

```

<210> 30
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 93
<223> /replace="t"

```

```

<220>
<221> variation
<222> 260
<223> /replace="g"

```

```

<220>
<221> variation
<222> 274
<223> /replace="t"

```

```

<400> 30
ttacataaag tcaggctgac atggggttcaa attctggctc ttcacaataa ccctataagg      60
caaatactat tcccgtttta cagctgaaaa acctgaagtc aggaggctcag gctaaggttaa      120
tatgtctatg gtcttatagc tagtgggtgg gagatgagaa tgaatccagt ctggctgaag      180
agtccatact tctggcctcc gtcatagcct gggcttccca aagcttgtgc tttgttctct      240
tattggcaac aggccatcaa ctgcattcgt tacgtaaggt tattatgagg agtaagggag      300
ttattaaaag tgtctagcat gggttcctagg acatagtagg tactcaaata ttttccctt      360
tctgttacta ttaacacttt ctttataaaa taaaaattgg c                          401

```

```

<210> 31
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 31
ctaacactga gaaactccag acagatcctg aagttaacaa aacatgaatc tattatctac      60
ttaaaatgac tgcaataaag gcttcttgat ctataactct agttttgcat gaagatcaac      120
aagctttcac atggtaggtg gagtaaatgt gaagggtgaac agtggtcagat gtgaaagata      180
cagtgggatt cttgccatac gctcttcagt cttaaacctt ctgcagggtga tccaactaca      240
ccccaggaat taagaagcag attataaacc tcaggccttt aaagggcaaa aagggtctgaa      300
ttagtccaaa agttcagggc aaaactctaa atgactttta gttacaacgg aaaccactt      360
ggaaagttgc ttttcttctc caatagcttc ccaagaaagg g                          401

```

Seq-Listing-P1425.TXT

<210> 32
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 19
 <223> /replace="t"

<220>
 <221> variation
 <222> 70
 <223> /replace="t"

<220>
 <221> variation
 <222> 115
 <223> /replace="t"

<220>
 <221> variation
 <222> 126
 <223> /replace="t"

<220>
 <221> variation
 <222> 147
 <223> /replace="t"

<220>
 <221> variation
 <222> 223
 <223> /replace="c"

<220>
 <221> variation
 <222> 340
 <223> /replace="g"

<220>
 <221> variation
 <222> 360
 <223> /replace="t"

<220>
 <221> variation
 <222> 384
 <223> /replace="g"

<400> 32
 taataataat agtgaaggcc tggactgggt agaggaagaa actgatccaa aacaaacgtg 60
 caatgaggcc tcagccaatt cctggggggc agatctggct gtgtacagca gttcctgaat 120
 aatgtcgggt cattcgatgt tctttcctta taacgttgat gagaaaacaa ttgatttgca 180
 cctggggcca ccatctgtgt gtatttgcac aacctcccca taactgcatg ggttttctct 240
 gagtactcta gtttgctctc tcattccaaa gtcatgcaca ttaggttaat tggcatgtct 300
 acatggactc agtgtgagtg aatgtgagca tgggtgtgaa tgtgctctgc catgagagac 360
 tgtcctgttc agggctgggt cccacctcac tccgtgagct g 401

<210> 33
 <211> 401

Seq-Listing-P1425.TXT

<212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 8
 <223> /replace="t"

<220>
 <221> variation
 <222> 62
 <223> /replace="g"

<220>
 <221> variation
 <222> 84
 <223> /replace="c"

<220>
 <221> variation
 <222> 221
 <223> /replace="t"

<220>
 <221> variation
 <222> 245
 <223> /replace="g"

<400> 33
 ttcttttcctt ataacgttga tgagaaaaca attgatttgc acctggggcc accatctgtg 60
 tatatttgca caacctcccc ataactgcat gggttttctc tgagtactct agtttgctct 120
 ctcattccaa agtcatgcac attaggttaa ttggcatgtc tacatggact cagtgtgagt 180
 gaatgtgagc atgggtgtga gtgtgctctg ccatgagaga ctgtcctgtt cagggctggt 240
 tcccacctca ctccgtgagc tgctgggatg ggctctggcc acccatgacc atgaactgga 300
 aataagcagg taaagaatta tcttacttgg ttttattaat ctttcttaaa tgtatgtata 360
 gttcacattt atttcaatgt ttaatattag aaatgttttg c 401

<210> 34
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 45
 <223> /replace="t"

<400> 34
 gtgtcattag aggtacagaa acacactttt tttttctatc tgtgggtgtct caaattgtta 60
 tggtgggtgtt attttcttct aaatgtcttt ttaaggaaag aaaaataaaa atttaaatta 120
 ttagcaacga tttttgccat tcatctttat attatgcatt gctaatttta aacacaagtg 180
 tgtttaatta acttgtatgg cgactcacca aaatatacat tttgtatfff attactcatg 240
 cgtgtatagg tttttgttct aacaagaaga gtaaaaacac tgcacaaaac taactcaaat 300
 gatffffattt cacttattga tatgtgcata ttctgccaat gttctctacc tttggcatac 360
 tggtgactaa cagagaactg aaaggaaatg taactatctg a 401

Seq-Listing-P1425.TXT

<210> 35
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 50
 <223> /replace="t"

<220>
 <221> variation
 <222> 195
 <223> /replace="c"

<220>
 <221> variation
 <222> 259
 <223> /replace="c"

<400> 35
 aaaaaagttt caaaggcagt ttttaaaatg cttagttaaa ggctaacatc agtatagttt 60
 aaaaggtaat tgatctatag atgaactaac aactaccaac agcatctctt ttgtcagtct 120
 atagctgaca gatccctcct tcttatgcct acaagtctga catctactga agtttcatag 180
 attggctgaa agcagtagtc cggaaaactt tagtcccagt tccagagatt ttcattctct 240
 ataccatcag ctcttttgaa actggtgcct tttaggctct gaattgacat gggttcaagg 300
 gcatctcact ctggtgacct tgtaccttga atttcctcaa cattttcttt gtgatttgat 360
 atcaatatta gttctctagc tacctgcatt acaatagtcc t 401

<210> 36
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 36
 atatagggtc ctccatagta tttgcaaata attttaaaat ttccatattt gtaatttgcc 60
 atttttaattt ttctaattggt gttaacttat atcttctctt tttattttta aatttgattt 120
 gatacataat attttatacat attttatggta ttcatgtgat attttgttac atgcttaaaa 180
 tgtgtaatga tcaagtcattg gtttttaggg tatccattac ctcatgtatt tatcattttt 240
 atgtattgtg aacattttcaa gtcctctttt ctggtatttt gaagtatgaa tatagtgttg 300
 ttaactatag ttaccctact ctgatatcaa acattagaac ttatttcttc tatctaactg 360
 tatgttcgtg cccattaacc aacctccac cacacaccct t 401

<210> 37
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 28
 <223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 80
 <223> /replace="t"

<220>
 <221> variation
 <222> 400
 <223> /replace="g"

<400> 37
 cctggatgtc taagtctctt gctggacctg agaagttttc agctattatt ttgttaagta 60
 gatttttctat gcctttgacc ttctcttcat tttctgtaac attcaaaaat caaatattgg 120
 tcactttatg gtatcccata tgctatctag gcattattcg ttctttttta tttagttttt 180
 aattcatttt tgtctgattt gatgatttca aaagacctgt cttcaagttg tatgattttt 240
 tcttctgttc gatcttatct cttgttgaag actttgtatt ttttaattga ttcaagaaat 300
 tccttagttt caggattttt ctctggttct tttttataat acctatctct ttggtaaatt 360
 ttcattaata tcttgtgttg ctttttctga cttctttgta t 401

<210> 38
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 160
 <223> /replace="t"

<400> 38
 atgggtgtgct gtagctgctt aaagcccaca gcttgtgtgg gactcagcag gaacttctgt 60
 tctgatgtaa tgctatcgtg tgatgcccag acatcttctt ctgttactct cagggcttga 120
 gagggtagat gggctctctc atggctagga ttgctagagc tgcagtggaa atgtggacca 180
 ctggggctct ctcaattata ctttctccac ttggggagct cctctgggat cccagcttat 240
 cccagctgag caggctactt cactttgctc ctctacctg ccttaggtgt tccctgtcac 300
 ttctctgttg aattatagtg ttctttctta gatgatctat tcaaagtgtg gttatctact 360
 cactattttt gtttttctct gtgcaggagg taccagatgc c 401

<210> 39
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 274
 <223> /replace="c"

<400> 39
 agcaggctac ttcactttgc tcctctacct tgccttaggt gttccctgtc acttctctgt 60
 tgaattatag tgttctttct tagatgatct attcaaagtg tggttatcta ctcaatttt 120

Seq-Listing-P1425.TXT

```

ttgtttttct ctgtgcagga ggtaccagat gcctctagtc agccgtctta tagcccctcc 180
tatatcgttt taatttttgt cttgggtcaaa cttgcaaaag gttgtctact ttgttgatgt 240
taaaattttt tcgttttatc gaattttgat tttgtaattc acacttcagg cttttatatt 300
tatccattct gtcctttag cttagttgga tttattttgt tgttacttcc tgtgcttctt 360
tgtttgacgt attagttttac ttattttacat ccccaccagc a 401

```

```

<210> 40
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 247
<223> /replace="g"

```

```

<220>
<221> variation
<222> 290
<223> /replace="g"

```

```

<220>
<221> variation
<222> 339
<223> /replace="g"

```

```

<220>
<221> variation
<222> 400
<223> /replace="c"

```

```

<400> 40
ttgagttggt ggggtaccaga actgataggt gtcattgtatt taagcccatt tgaaaaatac 60
atttcaataa tggagtgaga ctctgtctca aaaaaatttc aaatgtcttt tctcaattga 120
aaaaacctat tttttctaga tagataagta aataaccttt gcaaactcga gccacacttt 180
tcccccttct tttaaaattc tgcttaatat aattgaaaac tgaagtctga ctctccaagc 240
ctataaagga taaaagagag acaggataga tagaaataac tggcaacgaa gagttactgg 300
gctttggctc catgggagac aatagtgggt tcatagaaag caatgggtgga ctcttagtca 360
actgaagctt ggggtggaact tagctgcata attaagaaga t 401

```

```

<210> 41
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 121
<223> /replace="g"

```

```

<400> 41
gtttctggcc tgtgcttcta caaaacacac agcacatatt ttctaaccat aattgaaacc 60
attttaaaat agtgtttttg gaggagtga tctatgtgaa acttctgtaa gctatttgta 120
agacagccgt gaaaatcctc catgttctat gcattggatt ttttttcctc cttactcaca 180

```

Seq-Listing-P1425.TXT

```

aggatcatct tcagggttaat gtcacagaaa ttgggacaac ttagtggttcg agaaatagag      240
aaatagctca aggagctatt agataccaac ccataccatg ttgttttctg aggggtgggag      300
aaactagaag aaagtttgac attactctca ttccatgaga caacctcaag aacacaaaacc      360
caaactatcc aggtaggact tttagtttag ggagaccacc a                             401

```

```

<210> 42
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 42
ttaagatgac gtatcctgta ggatggacta aataatgctg cagcaaggaa tacttcccaa      60
attgtcatgg cttgcgataa gtcttatggt tttctcatgt tttatgtcca ttatggatct      120
tgccctggta ccagcctga tgcagcagct gctctctgga tcatgcctca tcgctgtggc      180
agagcttatt gcaaattgag gactctacct gggagtgaca cataactcca ctcacaattc      240
attgtccaaa ataagtcaat gaccacacct aacttcagtg ggacaaagaa acactatcct      300
actctgtgct tagaaggaag aaagatgaaa atatttggtg atggctctat gactaccatg      360
gatagctttt attttaatat tgtacattaa tagcgctctc t                             401

```

```

<210> 43
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 103
<223> /replace="g"

```

```

<220>
<221> variation
<222> 263
<223> /replace="t"

```

```

<400> 43
gagtatgcaa gtacatgcat gtgtgtactt cgcacactgt tatctatttt aggctcaaatt      60
agatgtatct atggttgaga aattcccatt aaatattggg gcaagggttca gatgctgtag      120
atattttgtt acattttatc aaatgctttc ttacatgtga acccctcaat ctctgagaaa      180
tcacctaaag gaagccatgg gtctgcctcc tccaggtttc attattgcat ggaatgtgag      240
gggatttctg tcttaattaa tgcataagcc agctcttctg agtttgggtg gatatccttg      300
aggagaaaagg tagctaaaat tagcagcctc tactctcttc tgtgttcctt ataaaaaaaaa      360
agagaaaactg tctcatcttt aagaatggac cagttatgaa c                             401

```

```

<210> 44
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>

```

Seq-Listing-P1425.TXT

<221> variation
 <222> 90
 <223> /replace="g"

<400> 44
 ttgttctcac caaaactcat gttgaagttt gatttctcat tgtggcagtg ttgaaaggtg 60
 gaagctgatg ggagggtgtt gggtcatgaa ggctctgtcc tcattgatgg attggtgcca 120
 ttctcacagt agtgacttct ccctctggca agactaggta agttcctaca ggaatagatt 180
 agtttctgaa agagtgtgtc gttataaagg cagcacgctc ctcagctttt ctctcttagc 240
 acgcgtccat ttcccttttg accttctctg ccatattaga ggcaacatgg aaaccctcac 300
 cagaagtcag ggctttgccc ttgaactttc caccctgcag aaccatgagc taaataaacc 360
 cattttcttt ataaatcact cagttctggt attctgttat a 401

<210> 45
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 45
 <223> /replace="c"

<400> 45
 tatcatgagt atatctaacc ctatgtttac tgtatttgtg ctatgatatg aatatatttt 60
 gatttagtat ttgatcagtc ttactgatt gttgagaatc tactaactca gtgcttctca 120
 aagtggtaaa gggctagttt ttcaaaattt cttatctctc ctggattggt gcatagtctt 180
 accacatatg actcatctcc ggcttgcacc acttgctaata caccacgtaa gtgtggcagc 240
 atctaaacaa atctgtcttc atttcaagga agagaacgct gataatgcac atggatgttg 300
 caacaatgtc aaattgctat gaaaatttct aaatgaattt tctgctcaat tgcctacctt 360
 gttgcaaatt aataacaggc agttaacata actggtagtg t 401

<210> 46
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 314
 <223> /replace="t"

<400> 46
 acagggtcag gtgaggaatg tgaatacttt taggatgggg cctttcctcc tagatgtttc 60
 taggtggtgg tttccttatg aaatgacgac accccagagt catgaccaa ggctcatcac 120
 agtcagcttg aaggatgccc tgtgtcagct cctacttctg cccactgtt gggctggcac 180
 ctacttcttc tgaaagacac gcctcggtg tcccctctgc ggtggcacia agtggctctc 240
 agtgaacctt acaataataa attataaatt aataagtaat tgatagattg aataaatgaa 300
 tgtttgagga gttcgtcttt ggtagatgac attttcaata tgggtttatc tgttgatcat 360

Seq-Listing-P1425.TXT

tcagaaataa aagcgatatt taactgtgtc tcttatttgg a 401

<210> 47
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 296
 <223> /replace="g"

<220>
 <221> variation
 <222> 302
 <223> /replace="g"

<400> 47
 aggggaaaat gattaagtac tgggttattt gagaaaccat gaagaccaga aggaagtgac 60
 acaagttttc aaatgctgaa agaaaagtct tatcaaacca ggattttata ttcaacaaaa 120
 aattccttca ggaatgaagg attaacaaaag atatagtcaa atgagggaaa actaagagag 180
 tttattgccca tcagacctgt gctaaaagaa ttgcttaaaa aaattcttca gacagaaggg 240
 aaatgataag aaatggaact tgggaacttca aaaataaaaag aagatcaaca gaaatagcca 300
 cataaataga gtagactatt tttctccttt tgagttcttt tttccttttt tctatttgtg 360
 taaatttagg gagtacaagc acagttttgt tacatgggata c 401

<210> 48
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 48
 tagagtgtcc caatttgaat gtcagatctg gttacagata cattgagata atgggtccctg 60
 aaccctgggc aactgggcat gttctggggg tgctggagtc cttgttctgg tcacttccag 120
 ccatataaac atactttttt ctttgctgag gaactgatct gtgctgagga atgccacatc 180
 tgggctctgt tgaagaaggt cggcaaacag aagagagaga tggggcattt cttcctccac 240
 tccctccctg ccttgggggc acaattccag cagcagttgt acccttccct tctggtgggc 300
 acttccccctg cagccctctt ccttagctcc tagtatctcc tagggcagta atagctccaa 360
 actgctccaa actgctgtta gtctttgggg gcctcccaac c 401

<210> 49
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 124
 <223> /replace="g"

<220>
 <221> variation

Seq-Listing-P1425.TXT

<222> 153
 <223> /replace="g"

<220>
 <221> variation
 <222> 187
 <223> /replace="t"

<220>
 <221> variation
 <222> 315
 <223> /replace="t"

<400> 49
 ttcatctgtt caagaaacaa caatgaaaaa aaatggtgat taaatgcaac cacacctaaa 60
 taaggtagcc aggaggtaga accagcttct ccatgaacag gccacatacc atctcccggg 120
 gctacctcca gtgtccagcc tggctgtgct caagccctca gggcttgctg gactctctg 180
 gcagtggggg gtcaggactc gagtaggttg gatgctgata gcagagagtg tgattctccg 240
 gcctgatgac ccagaatcac tcccaggact ggaatcccag ctctcccagg aggaaggagt 300
 cgtccctggg ctcccgcatc ccccaaatgc tgattctgtg tctgcatgtg gaggggtaac 360
 aaacaaacaa caaaggacca tctcaattaa cctgccacac a 401

<210> 50
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 91
 <223> /replace="c"

<400> 50
 ggatatcaga aaagtgttag aaagaggaaa gtagagtaaa tccaaacctc tctctctaca 60
 ctctccaaac ctgtcccca caccacccc accccttgt tgccaagttg taagatcttg 120
 ggctgacttc caagttcca aaattcaagt gtggaaaaag ccaactaatc tcctggaaaa 180
 atctcctgat gtgtattttt cttaacaat ctgggctgat tttaaactta gccacagta 240
 aactgtgctc aaccggcatt atcattatgg acacttgctg ctgtattttc caaggatctc 300
 ccctcccccg ctggtattgc taccagatac agaatggaat ttgtcaggac aagccatgta 360
 ttactactaa accattaatt cagttagtgc attaggagtg g 401

<210> 51
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 51
 ctgcagacat gtagcacta gcttccctt ggacactctt tttttaaaaa aatgaggtga 60
 catggacata atttaaaagt aaccatttta atgtgaacaa ttttagtgga tttgtacat 120
 tcataatgtt gtgcaacaac cacccttact aattttaaaa cattttcctc accctaaaag 180
 gaaaacctgt acccattaag caattgctcc ctatttctcc cacctctggc accaccaatt 240

Seq-Listing-P1425.TXT

ttatgttctg ttcctggat ttacctattc tggccacttc acataaatat aactacacaa	300
tacataacct gttgtgtctg gcttttttta cttagcataa ttttttcaag actcatccac	360
attgtatcag gcatcagtac tttgactgga taatattcca t	401

<210> 52
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 346
 <223> /replace="t"

<400> 52 agaatatgta ttgggtggag tattctgtgt gttaggctta gttgttcaag tcttctat	60
tcttattcgt tttctgttta ttttttatcc atgatttaaa gtgggttatt gaagtctcta	120
ttactgcaga actatctatt tctccttcaa tttgtcagt gtttgcttca tatacttgag	180
gtgttctgtg aaagggctgt gtatacaaca tgatctccaa atgcagattg agccaagaaa	240
tgaaaaaatg agtcagacaa atccagtttg tcagtaaagt gtgatttatt agaggactta	300
cagacagaaa tgtggtcttg ggtggctgca agccaggaag aattcggcag tgcaaccctc	360
taggcccagg gcttatatat cttgggtggg gggttaagtac a	401

<210> 53
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 53 agaaaaccca atgcaaggca aaagagcttg gttgagtcac cccaagtgac aaagtcatac	60
ttaagcttct gggttcagtc agtcattctt gctgagaggt tggagaacac atactagtta	120
agacaaataa atagcaatth aaactttgga catgctttct tctcttagct atgggagggg	180
cacatgtttg gagaaaaatc gaagcatgtc aggaggggat taaaaacatt tttatttcta	240
atcaacaagt ttataatgct ttaaatgctt ttggtttgta acaagttaaa aatgaatgtc	300
tatttgtttt ttttaaaatc tgtcttcttt gcagtatgat ttccttggtg ttagaagaaa	360
aaaaactgtg ccttatgaaa atatagatta aaaatgtcta a	401

<210> 54
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 176
 <223> /replace="c"

<220>
 <221> variation
 <222> 339

Seq-Listing-P1425.TXT

<223> /replace="t"

```

<400> 54
cagcattctt aatcaaaaaa ttcaaaattg aaaatgcccc agtgaagcat tcctttgagc      60
atcatgtcag tgttcaaaac accttggatt ttaaagcatt ttagatttca gattttcaga      120
ttaggtatac tcaacctgta ttatctttga tgcaatgtta tcattatact ttatgacttt      180
tatcatgctt tctcttagtt ctttgaacat aattataatg gctattttga agtctttttc      240
tcttaaactct gatgttttgt cattctcaca gacaaattta tgttttctgc tttttctggt      300
atatggctca ttttttctg tttcattgca tgcctcatca ctttcttttg gaagttggac      360
aatttagatc atatgtattg cagcaactgt gggtagtagc c                               401

```

```

<210> 55
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 258
<223> /replace="t"

```

```

<220>
<221> variation
<222> 297
<223> /replace="t"

```

```

<220>
<221> variation
<222> 344
<223> /replace="g"

```

```

<400> 55
attgcatcct tgtttttttc ctataataat gtgtctcaag ttcatTTTgt acaattcctt      60
tccagtcttg cattcatttt ccaaaggaga acttgTtctt ttcaatggga aatgatattt      120
aaagatcaca gcttgggtga cattatttct agttcttttc actataaagt aaaatgcttt      180
tttcaTtta cattttcacc gctaggaaat gatTTTttta aaaagataaa atacatcatg      240
aggTcatact ggaaaacctt attcccacaa acgccaacat aacaacttgt tttatcctac      300
aaaacacaca cagcaccatt gttactacat ataataagat aatagaaaaa cctatataca      360
aatgaaaaag agccttaaac gttgttttac agttcttctt g                               401

```

```

<210> 56
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 23
<223> /replace="g"

```

```

<220>
<221> variation
<222> 121
<223> /replace="g"

```

Seq-Listing-P1425.TXT

```

<400> 56
gccttgagggt ctgtatagag acaaatagcc tgagagagga agaacctatt tgtgtaagca      60
tcaggggtaa tgatgtggag atgtctgtgt gtctgtgttt gtgtgtgggt gtgtgtaaca      120
agatagcgag agagtagaca gagagagaca gagagacaaa gagagactga gagagagagg      180
cagggagaaa cagaatgtgt gtgtgtaaga gagagagtca gagagaggag agagagggag      240
agagacagag gcagagagag acaaagtgtg catgtgtgtg tgtgtgtgag agagagagag      300
agagagaaag agggagagag acagagacaa agaccaagat aaagacagag acagagagag      360
aatggaaaga gagagcgaga gagaagatga tgaactggag g                                401

```

```

<210> 57
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 68
<223> /replace="g"

```

```

<220>
<221> variation
<222> 70
<223> /replace="c"

```

```

<220>
<221> variation
<222> 112
<223> /replace="t"

```

```

<220>
<221> variation
<222> 338
<223> /replace="g"

```

```

<400> 57
gtgaactgaa gttgcagaga aatacatgcc accttatgat gaggaataca acaaatcta      60
acaattgaaa gtatccaagg atggtttagg atgatctgga gaggggaagt ggaggatagg      120
tatgtgtgac caaattatat gaccttaatg tcccatatat cttgagattc tatgatttaa      180
agatgccttt agtatttaat ccatggcttg acccaatcca tagtcaactt tttaatctat      240
aacatttttaa aagataagca aataaagcca agttggtttag attctccac ccaaatccaa      300
gcctaaactt atgtaattga cattggattt attagtcaca aaaattatgt aacacatggg      360
aaatatatat ttgtaaaaaa aaatgagagt tttttaaggt c                                401

```

```

<210> 58
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 395
<223> /replace="t"

```

Seq-Listing-P1425.TXT

```

<400> 58
cattatgaaa tgaaaagaat ccacaatgga atgaaactgg taaagtattc aagctgcgta      60
agtccttggtt ttatcagggtc acaaaaaatta atttctcatat cattctgttg ttttgcaaac    120
aaactgcaag attgcagagg gttttatttta ttttagacag cctgaaaaca gcaaggtgta      180
caataacagg aataaccagg tcatttgaac aggatcgtga cagctattga tgctacctgt      240
ccagcctgga catgatttgg cctgaccaag cacccaagaa ggctcagtgg gttgtgagca      300
caccctgagc caaaagcggt atgggctgct ccaaaccaag tgtactttta acgtggatta      360
ataaaaacct gatattcggg ttcagaaata tgacagttgc a                          401

```

```

<210> 59
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 7
<223> /replace="t"

```

```

<400> 59
accaggacat ttgaacagga tcgtgacagc tattgatgct acctgtccag cctggacatg      60
atttggcctg accaagcacc caagaaggct cagtgggttg tgagcacacc ctgagccaaa    120
agcgttatgg gctgctccaa accaagtgtta cttttaacgt ggattaataa aaacctgata      180
ttcgggttca gaaatatgac tgttgcattg taaggctaca tctagagtag tgcctttctt      240
ctggggtcca catttagaaa ggacagggac aaagtaaaga atttcagatg aagaggaaca      300
aaatgggaaa ggccatgaaa ttgatttgtt atacatattt gttcagggaag agaaaggaca      360
gaggcagaat gataagagga gcaaggaaca caggacagag g                          401

```

```

<210> 60
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 60
aagggataaa aaaagatatc ctaggcaaata aaaagaagcc aaaaaacagc aggaatagct      60
atagttatat caggtaaaat aaacttcaag gtaaaaacca tgaaacaaga caaataaggt      120
cactatacaa tgaaaaatgt tcaattcatc aagaggatat aacaattgta aatgggtcca      180
acatcaaagc aactgaatat gtaaagaaaa tagtaataga tatgaaggga gagatagact      240
ataatacaat aatagtaggg gacttcaaaa ctcatcaatg gacagatcat ccagacagaa      300
aaccaataag gagacattga acttaaaacta taatttagac caaatggact tgagtgcacat      360
atacataaca ttctacctat cagcagcagc agcagcagat t                          401

```

```

<210> 61
<211> 401
<212> DNA
<213> homo sapiens

```

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 117
 <223> /replace="t"

<220>
 <221> variation
 <222> 275
 <223> /replace="c"

<220>
 <221> variation
 <222> 349
 <223> /replace="g"

<400> 61
 ctttgcccat gcttccttag taggaagaaa aagagaagga aaataatggc tagtaagtgg 60
 ataatagcaa gtttagaggat cctttgcaat cctggctggc tctgtcctgt gcgcctcctt 120
 tccttatcct taaagggttg tgaacttctt gtcaccagca gacaattgag attcaaacat 180
 atgtcagtgt cattctgaac gaaaaatgga agtgtgatcc ttaagaaaaa tggctctgca 240
 tattatcata gcttcttaga tttggaaaat aaccatggtg tctggaaaaa attgagagaa 300
 tcttactttc aggttaaatg ccatatccct ttcaactcca aatacattag tatttctaaa 360
 gtaagaataa atgattctga gactccgta gtgaaaacta a 401

<210> 62
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 98
 <223> /replace="t"

<400> 62
 ctgccaggaa agaaaacgtg aactgacatg taactagccc tgtctggcac ccaccacttt 60
 acttattagg tggcatctgg tccctatacc cacgtttcgg tgtcagtttc ttcattctta 120
 tgaatgatct gaggctggga gaggggttggc cccaggtctc actcattgaa gagatttgaa 180
 tccaggcgca tctcattcca gcacccatat ttatccagtg cattctctag ggcaagatat 240
 ttcccttaca tgttttcctc ttaactgctt aaaaagtctt tttggcacag tattcctgta 300
 ttctagtaac aaactacaat gttatgtgtc agtattccta ttccataaat aagaacctgg 360
 aggatgtgaa ataagtgatg tgtaaatgcg tgaaagatag c 401

<210> 63
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 63
 tcttactccc catccctcct tgaacctggg cttgaccaat agaagacaat gggtttggtg 60
 ctttgcaacc tctgctcctg gtcctgagag gtcttgacgc ctccttctgg gtgctggcaa 120
 ctctttcttg gaaagttcac cctgggtgcaa gccggcaact atgaacaaag gtaacaatt 180

Seq-Listing-P1425.TXT

```

ctcagaccac cacgctgtga gaagcccaaa tgtagggaag ggtatcagac atgagagtga      240
agaaattacc ctggaagttg gtcctctagc cccagccacc ctggtggatc agaaagaaac      300
cgcccaaccc agaaaacccat aagaaaaata aatgggttattc agaagtcact aacttctgag    360
gtggtttgtt acagggcaag aaattactgg gacatatatt c                          401

```

```

<210> 64
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 40
<223> /replace="t"

```

```

<220>
<221> variation
<222> 49
<223> /replace="t"

```

```

<220>
<221> variation
<222> 394
<223> /replace="t"

```

```

<400> 64
ttaaagtaat ccacacatga atatagagaa caaaaagaac gtaaaaatga aaatgtattt      60
tttaatttga gaaacatggt ttatcaatac atatacacia agatggcaat taaaaaggaa     120
aacagactta ctgtgaataa aacacaaaatt ttgtctacat aactagaaa attttcctca     180
gatccttgga acccgttgat gtatTTTTat agaatagccg tgatctaatt ttTggcaggg     240
gtgtgttcac atgtgtgcgt atccattctt agaaatgtgt aaaatagtat accaaagtta     300
aagtaaatag aatgaaacaa tttttctcta cttagtaaca tttttcagta actctcctga     360
aacaatttcc atctgcaact ttacctttaa aagctttaat t                          401

```

```

<210> 65
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 18
<223> /replace="t"

```

```

<220>
<221> variation
<222> 47
<223> /replace="t"

```

```

<220>
<221> variation
<222> 175
<223> /replace="g"

```

```

<220>
<221> variation

```

Seq-Listing-P1425.TXT

<222> 226
 <223> /replace="t"

<220>
 <221> variation
 <222> 276
 <223> /replace="t"

<400> 65
 ttactcttg atcaaatcag catTTtTggca atgaaagtca gaagacgtgt gttttacaaa 60
 gtcaaaatat tgTTTTatTTt tattataatt tgaaattaca ttttaaccag tctaattggct 120
 atttctgagc cttaactgac atgaaactgt ctgtattTgt gcaattataa tgcaagatat 180
 ttgtagcttc atatgctgct gcagaggcta aacgcagagg atttagcctc ctttgacact 240
 caatcattgt acatttatct tggaaagggg aaaatgtaag tggctgataa ctaattttaa 300
 ttgacatcta gaaaaaataa ataaaccaag caaaccaaat gtgttttctt aaaactatgt 360
 tcttcttagc tattagcctc tcttttagcta cagaaagaaa t 401

<210> 66
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 5
 <223> /replace="g"

<220>
 <221> variation
 <222> 360
 <223> /replace="t"

<400> 66
 ataaagagta gagatcttct gctaactgta aatgggaaata tggattagag agaaacagac 60
 atgcactgtt ttaagccact aaacagtagc cactacccat tggttaatac agataagaaa 120
 actctcacia aataaaagtg aggggggaaaa tagggtaaaa aatgtgtcct gaatgtatga 180
 aatcaatttt gtgtgtgagg ggaaaaataat gtaacaaata tacacacaag gaaacccct 240
 ccccaaacc caccagaata ttgtttttac ctctgggtgt tgagactata gagttttaat 300
 ttctttatat attcttctgt ttttctagaa taaatgcata ttattttata attacaaagg 360
 ctacttttta actcttcata atcataactt ataatggtaa a 401

<210> 67
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 249
 <223> /replace="t"

<400> 67
 taggcaatga gaagaaaatc gtaattaagg ctgagagaat ggcattgcat cgttgcagag 60

Seq-Listing-P1425.TXT

```

gtaagaaaca gcactgggac tttaggaagt attttcacta ggatcaagta taatttgcac 120
aaggggaaggg gaaacaggag tagaaaagta ggcaggagcc agagaataat atgccttgca 180
tgccttacta agaatatgga ctttactcca ttctttgggg agttatggac agataactga 240
tatttccagc cacaatcaat ccagaaacac ccctgttttg acaatacccc agcctcctct 300
aggggggagcc acctttgatt ttcattggcag ggtgggatcc agaaagctga aagtctcttt 360
ccaaacttga tttggagaca tgaatttcac acaaatacaa c 401

```

```

<210> 68
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 68
tgctgcaatt gtatgcacat gaccatgagg catgatttcc tgaactgggt gggagatagg 60
ggcacagaat ttttgactca gttccattgc tttaacctgg aaaaaaaatt ccaacatcct 120
tggaactctg attttctgct tgtaatacat ggagtgtaac agctgagcca caggctgttt 180
tgagaacaga acaaaaagct gtaaatatgt cagtcaataa aactctacca agcaaagagc 240
ctttataaat tcaaaacact attgatgggt ttaaattatt ttctctgaaa aaacataaac 300
atcagagggt atttaacttt tctattattt ataatacagt caccaattta gagataggag 360
acttaatttt ctcttttgtc caaaatcaac tcaaattatg c 401

```

```

<210> 69
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 152
<223> /replace="t"

```

```

<220>
<221> variation
<222> 223
<223> /replace="t"

```

```

<400> 69
acatcctctg caacatctgt tgtttcctga ctttttaatg attgccattc taactggtat 60
ggatttttgt atctcattgt gcttttgatt tgcatttctc taatgaccag tgatgatgag 120
ctttttttca tatgtttgtt ggctgcataa acgtcttctt ttgaaaagtg tctgttcata 180
tccttcaccc actttttgac gaggggtgtt gtttttctct tgaaaatttg ttttaagttct 240
ttgtagattc tggatattag ccctttgtca gatgaagaga ttgcaaacat tttctcccat 300
tctgtaggtt gcctgttcac tctgatgatc ttgaaaatgg tcatattgcc caaagtaatt 360
tatagattca gtgctatccc catcaagcta ccattgactt t 401

```

```

<210> 70
<211> 401
<212> DNA

```

Seq-Listing-P1425.TXT

<213> homo sapiens

<220>

<221> variation

<222> 63

<223> /replace="c"

<400> 70

```

aaccttttcag tggcttcttc cttttgggta ttacgaataa tgctgctatg aacatgggag      60
tgaaaatgtc tgttcaagtt cccgttttta attatttcag gtatatgccca agaagtggag      120
atgctggatc atctggtaat ttaacattta atttttgaag acccactata ctgttttccg      180
cagcgaccgt accatattac gtttcctacc agtaatatga gaagggttcta ctttctccac      240
atcctcacca ctatttgtct ttttatgctt ttgttttaat actagacatc ctaatggggt      300
tgaggtggtg tcttgtgatt ttaatttgca tttccctaata gattagtgac actgagcatc      360
ttttcatgtg cttattggcc atttgtatat ctgctttggg g      401

```

<210> 71

<211> 401

<212> DNA

<213> homo sapiens

<400> 71

```

tgaaataatc caactgcagg aaccaactca ataggggggag gattgcctaa ttttcaagca      60
tttctgattc attatgtcac cattagcata gtattcccaa aacgcacttc gtgacatgca      120
aagatcccaa gataaaaatt tcacctatgt gtacgtctgc aaaagagaaa aacaattgtc      180
agaatgagca ctaaaccttc gttgatgggt ataggagggg gtggaattat aggacagact      240
taattttatg ctttctcttc tccagtgtgatt tacttttcta cagaaaataa gccatattta      300
taattagaaa aagaggaaaa cgtaactgat tcaaaactac atgtacaata tgaatttttag      360
cttacaaatt tatacataga ggtaaacatc aaaaacgggc a      401

```

<210> 72

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 83

<223> /replace="t"

<400> 72

```

agttggagaa tctactgact aaaagttgaa atggaaaatt ttaagactac aaataaagat      60
cagactaaag gcaaggcaga gccgccctgg gagtacagtg aatggggcat ctgtgtccca      120
ctcgggccc gacgccttg tccagctact gaacagttac tttgagtga tcaggagggg      180
gaaaattaca ggcacagctg gcatgaatcc actccccatc catggccagt gcaaaggaga      240
caagacactg tctcttact tttatacact tacttcattt tgtgaaactt ctcttgccct      300
tactatatgt gcatattgtt caagtgaata cctgccagtt ttagaagaga aaggggttagt      360
ctgttcttgg ctgctacatc aaaataccat aacctggggg c      401

```

Seq-Listing-P1425.TXT

<210> 73
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 14
 <223> /replace="t"

<400> 73
 ataataacac cagcaaatgt ttagctaaaa aatttagcca tacatgccac acattgtgct 60
 acacattgag ctctttgggc ctcacatcaa cgctgaatta ggagctatga ttatcccat 120
 tcttttagatt agtaagctgg gtatcaccaa ggagaagtac ttgccccaaa gtcacatggc 180
 tcatatgtgt tggaagcaag gtttgtgaca gatcttccat gttaaaccat tatgttatcc 240
 tccttaggag agagtatggt tttatgaata tactgctcca attggctgag atgacaatac 300
 tagtttttaa tcggcggctg tgacatattg agggcttata ttaagaatgc gagctgctcc 360
 aaaatgtccc tgcctgcag ttgtacaatc acatattttt a 401

<210> 74
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 24
 <223> /replace="t"

<220>
 <221> variation
 <222> 51
 <223> /replace="c"

<220>
 <221> variation
 <222> 172
 <223> /replace="t"

<220>
 <221> variation
 <222> 330
 <223> /replace="t"

<400> 74
 caaaaacttt gaagttagat aagctgattc aaatcctaaa gccagccctt gaggctgtg 60
 tgaccttggg taagttagat aacctttctg ggcctcgggc tctttacctt ttaaatgagg 120
 ccaagtgtgt acatgatgct aattaagtga gacagtccat gtgaaggctt agcacagtct 180
 ctggcattca ataagaacac ggtgagtgag ttgtttttct tcctgtcatt ttaggggttg 240
 tagcaatagt gtttttgatt gcagtgggtt gttgactgcc aagtgaatga ttatacatgg 300
 acatggaagt tgagatatga aaaaagccac gtgggtcaga gtctcatggt cagctaccat 360
 ggcaatcctg aaaagctcct ctacctgaat ggcctgtcct g 401

Seq-Listing-P1425.TXT

<210> 75
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 12
 <223> /replace="g"

<220>
 <221> variation
 <222> 237
 <223> /replace="t"

<400> 75
 tgaaggggtg gatcaggcag aggggtcttag gccactgctg gtaaatagcca aactaactct 60
 gaggtcagaa gtccttgatg ctacatcccc aggttcaaaa gcctaagaag ccctcatttg 120
 gactggggcag cgtccctcca cctgagagaa attaataaca gcaagcttct gaataattgc 180
 tgaaatccac acctgaaccc ggatggacca gagcagccac aaagtcctca aagcacctga 240
 ccagccccct cagtgggcta tttttgtaga aaaagaatga gtcctggaaa acaaccaa 300
 acccattgtt tggctgcgtt tattttccat caagagtgat gcagatagct tgcccagtag 360
 ggacccactc agcgtctaaa gactaggcaa atggagggtg g 401

<210> 76
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 57
 <223> /replace="c"

<400> 76
 cattcaaata caggaataag aacttcattt tgtaacaaaa acaataatta tataacactt 60
 cttaatatata gctatcactt cctaataattt tcaactgtcac actgagctaa attttaatat 120
 gaattatctc actcaatcct taaaccaatc tgtataaggc aggcaacata actttttcaa 180
 agttgtacag ggaacaagaa ccaaaactag gacccaaatc aaggattctc tgatgatctc 240
 catgcttgta atgttctctt tctttttccc ccaccaatat gtggaccacg gtcttcttaa 300
 caaaatagct gcaatatgtg gtattaatca ttatgtacac acacagacac atacacaaat 360
 acaaaggaga tttgctatta acttagattg tacaattaa a 401

<210> 77
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 240
 <223> /replace="c"

Seq-Listing-P1425.TXT

<400> 77
 cttgattcaa aacggaatgt catgttggtc agcaatatat gcttccacta aataaccaaa 60
 tacacaaatt gaaataaagt gaaattcttt ttccagagtt aatgaaaggt tcctgtttgt 120
 gaatttgggg ctttgaagtc caaggcttcc aaacagcacc aggaattttac tggtgattta 180
 ttactatttg gacaagtggc gaacagagca ttactctacg gaaagtccac attccctaca 240
 tgtcaaggga gccttcctga aatgggggaca ccagctcccc ttgctgcaac tcctcttagg 300
 gctgtgcctc aggtgggggc cacatagtct ggtgtggtca tctctcctgg gccagcgccc 360
 tccccctctc tctgctctag cccctgccct atcctgtgtc g 401

<210> 78
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 78
 atggaaatat aagctgtaaa ctgaaataat atattttcta taataattat gaattcagct 60
 ggatggaaca gaaaacttaa atgacagcag ctattctttc ccatacagca agaagggtgag 120
 tgggtggatgg ctgagggcca gcgcagggct cctgatgtta taaatgtcca gggtgcctcc 180
 ctcttcaggc tcggcaccct aagttggaga cttttgctct cagtatcaca ggatgggttt 240
 ccaggcgttg agactgcatt ccagggtggg aaaagaggaa agagcaaagg taaaaattca 300
 gctgaatcta cactgcttat ctggagaaaa atacttcccc agaagctcca tttggtacat 360
 ttctgcttat gtctaattgg acagaactga gtcacatggc c 401

<210> 79
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 274
 <223> /replace="t"

<400> 79
 ttaatgcttc cttttgtggg aagaacccct gaggtaatca gtgggggttca ctgaggtccc 60
 ctctcttttt cctctacacc actgttttat gcgtcctgtc tagcctcgtg ttgaaagtgc 120
 ctatttctgg gctccaatta ggctcattct ccctcttttc tttgaattat catgaactga 180
 attgatctgt cttttaaaaa attatccttg taaattgggt ctatctttta agtattaacc 240
 ttatttccct caattcaact tatttccaaa taactattag gcctgcccac taggtgataa 300
 gtttttttaa aaataatttg tcaactgtaga aatattcaaa catatacaaa aatagagagt 360
 atagcctgtg aactcctaca tccctagcac ccagctttgt c 401

<210> 80
 <211> 401
 <212> DNA
 <213> homo sapiens

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 15
 <223> /replace="t"

<400> 80
 ttattttccaa ataactatta ggcctgcccc ttaggtgata agttttttta aaaataattt 60
 gtcactgtag aaatattcaa acatatacaa aaatagagag tatagcctgt gaactcctac 120
 atccctagca cccagctttg tcaactcctcc atattatggt gaagtaaadc tcagatatct 180
 ttctactata aatatttcac catattcttt taacagctaa ggaaacttaa aaaataacca 240
 tcatacaatt tattacttaa atttattaat acatttttaa tatcagatgg taagttacag 300
 gatggagctg tgacaccctt gtcattgaaca agcctacagt ttagacttta tgctcacaaa 360
 gggtgctcag ctccctatta atgaattgat tgatgaatca a 401

<210> 81
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 117
 <223> /replace="g"

<220>
 <221> variation
 <222> 265
 <223> /replace="c"

<400> 81
 ctgtccatcc gaatcccaaa agctttcctt gtgcttcctg ctctgaccaa agaggcattt 60
 gaggcacatg tgagagaaca gctttccaga aaccacactt gagtccacag cagagcagaa 120
 ggggcaggag gcatcaggac cattttccaga tttctctctg gccctgattg tctagatttg 180
 catccaatca ctgcaagagt ttatacaaaa gttgttagaa agatttgggt ttcacacaga 240
 gttatgaaaa caaggtagaa gcctgatgtc ttcatttccc atgaaatctt gtgggtgtaa 300
 atgaaacatg ttttagtctc aaatcctgga gctgtggggg tcacaatgga gaaatatcca 360
 ggtctcttga acaagactgg acgataacca gggacagtgc c 401

<210> 82
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 82
 tctcactcca tgtcaagggc tattcttctt ctctctctct gtctctaaca atattgcaac 60
 gatattctga atttagttgt aaatttagtt ggaatttgat ataagctatt tgattttcct 120
 tcacaaattt gtttacagca atttcctccc agaacacact gataaagaga agtagatgac 180
 agttattgat gaaccctgct tctggcagtt attaatacag cattgacttg atgaagcagc 240
 catggatgcc acacctgatg gtgaggcatg tgacctgggg tccagctgcc atgggtcatc 300

Seq-Listing-P1425.TXT

catgtggctt tgggagtgtt ggggaagctac tgcttcagca tctccaagga acaagcgtcc 360
 tgtgagagtg gaagtgagag gtcagtaaag acagacccgt t 401

<210> 83
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 101
 <223> /replace="g"

<220>
 <221> variation
 <222> 153
 <223> /replace="t"

<220>
 <221> variation
 <222> 189
 <223> /replace="g"

<220>
 <221> variation
 <222> 224
 <223> /replace="g"

<220>
 <221> variation
 <222> 308
 <223> /replace="g"

<400> 83
 catatgtcaa tgcataaaaa ttatttcaaa taaagtatgt ttctgtgaac ataaaacatt 60
 tacttggttat gacactgtaa tcagggcgctc acagattcta agatatgaaa tgctaagcac 120
 cccatctcta ccaaaataaa aaaaatttag cccggcgctgg tggaacacac tgtagtctca 180
 gcttctcaag aagcaggggt aggaggacaa cttgagcctg ggaagctgca gtgagctgtg 240
 gttgtgtcac tgcaactccag tctgggtgac agaggggagac tatgtctcaa caaacaaca 300
 aacaacaaca caataaataa atagaaagaa atactaagta gacatttgat tatctcatgc 360
 ccaggttgta tctggagata agggatatgct ggaaagaatt c 401

<210> 84
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 110
 <223> /replace="t"

<220>
 <221> variation
 <222> 250
 <223> /replace="c"

<220>
 <221> variation

Seq-Listing-P1425.TXT

```

<222> 327
<223> /replace="t"

<400> 84
agaatcttag tggtagactgt gcaaagccat ttggtctaata gattttacca agagcatctc 60
agaacactag tattggttagt atgtagcctt gttaataaat atatacaagc acatgttgaa 120
atgacttggtt attatatggc tagagcaaac ccacgtcatc ctcatgatgt cttgctgtca 180
caatctcatt ctctcttggg ttctgacctg actcctcaag caagagaaca agggttggca 240
gagctctcca ggaatgcaca gccccagggtg cccagcagag ggcatcaagt atgacagata 300
ttggaatgac atctgtttgtg tgtgcagagc agactgactg agtggaaacca tgaccaaaaga 360
gaactcaggt agactcaagt gcttctggga aatttgagaa a 401

```

```

<210> 85
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 75
<223> /replace="t"

```

```

<220>
<221> variation
<222> 124
<223> /replace="c"

```

```

<220>
<221> variation
<222> 376
<223> /replace="t"

```

```

<400> 85
tggtattata tggctagagc aaacccacgt catcctcatg atgtcttgct gtcacaatct 60
cattctctct tgggggtctga cctgactcct caagcaagag aacaaggggt ggcagagctc 120
tccaggaatg cacagcccca ggtgcccagc agagggcatc aagtatgaca gatattggaa 180
tgacatctgt tgtgtgtgca tagcagactg actgagtggg accatgacca aagagaactc 240
aggtagactc aagtgtcttct gggaaatttg agaaacttcc ctgacagaga atttacttca 300
agtcagatac ctccccaata attgaaaatc ctgccaataa tgaggaaaga gaagtggacc 360
caaattccta tttccctgaa tctgctcttc agtttgttca t 401

```

```

<210> 86
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 91
<223> /replace="g"

```

```

<220>
<221> variation
<222> 284

```

Seq-Listing-P1425.TXT

<223> /replace="g"

<220>

<221> variation

<222> 360

<223> /replace="g"

<400> 86

```

agggtagggg agtgtagagg ttcaggagtg gtgttttagt ttggtgttgt gccagggca      60
gacctcaga taaaatgcct ttaagacaag atcctgtgga atggaggag gacctaagga      120
ggcaatgcag atgtctgga acggagggtc ccaattagaa aacacaaaag atcagaaaac      180
ctaaggcctg agtcagggtc agtacctgaa gtggggctga gcagggtgtt ggggacgagt      240
tgaggacaga gagggcctga aggtgagatc agttatcaat cagattaggc cttgtgaaga      300
ctttggctct tactctggat ggggaagtaga ggtctggcat tctctgcctt tcatttgaa      360
gggaaccctc aggagtggaa ggggagcaaa gctgggaaaa g                        401

```

<210> 87

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 42

<223> /replace="g"

<220>

<221> variation

<222> 125

<223> /replace="g"

<220>

<221> variation

<222> 272

<223> /replace="g"

<400> 87

```

aaacacaaaa gatcagaaaa cctaaggcct ggtcagggt cagtacctga agtggggctg      60
agcagggtgt tggggacgag ttgaggacag agagggcctg aagggtgagat cagttatcaa      120
tcagattagg cttgtgaag actttggctc ttactctgga tgggaagtag aggtctggca      180
ttctctgcct ttcatttgga aggaaccct caggagtga aggggagcaa agctgggaaa      240
agtagcaata aagtacctgc aaatgtttta tatagatttt gttcacatct ccaaaaaaag      300
tgcaaaaact cccctagctc tgcattttcc agccactgtg gactgaattg tgcccctccc      360
caccaagtta atatgcagaa gcccgaactc ccaatgtgac a                        401

```

<210> 88

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 78

<223> /replace="c"

Seq-Listing-P1425.TXT

```
<400> 88
aaacataact tatatgcaaa tggttaagaa taccagaaac attgcaagaa tgctcttttt 60
aaatcctgaa gatattgggt tatttttaaag catcaaggat gatttagatt tttggaaaaa 120
cagaggtggc atgaagatgt ctgaactcgc tcacacacaa acccgtcaca gccgctgtga 180
tctataagcc aaatttgtgt tagaactttt cttttttgaa taacaacaaa acaacaaaaa 240
cgctcctaac tgaaactggg aaaggactag aaactttgtt ttcttactaa tgtgaggttg 300
gaaacatatt ggctttcaag tgaattggcc gtgaccacag cagcacttgg atctgagggg 360
gccgagattg caggcagatg tgagtttggc acttgcacgc c 401
```

```
<210> 89
<211> 401
<212> DNA
<213> homo sapiens
```

```
<220>
<221> variation
<222> 352
<223> /replace="t"
```

```
<400> 89
taacatagta acagcttaca tttttatcct ttggttttat tgaaggatcc tgtaaataaa 60
taaaaccata agaaaacata tggaagaaca gtcaaatagg ttataaatat aatcaacact 120
gttttaacag catcacagag caagcatgga gggaatgata ttttattgat tatttagagc 180
ctaagccagg ccttgtgcaa cgcatttctc atgtataatc ttatctgacc tcatgaagga 240
ggattttcct taaactgggg agtctgaggc ttagcaaatg aatcgacaaa ccaggatttg 300
aactaaagtt taccttcac taaatacgcg tttttcttct tctctctctc tctttttttt 360
tttacccta tcgcatcata gccacatctg tggccacaca a 401
```

```
<210> 90
<211> 401
<212> DNA
<213> homo sapiens
```

```
<400> 90
tgcaaccaag cgactaaggg ggcaggaaa gggcttccgg taagagtcga agtgtgaatt 60
ttaatttcgg tggttctagg gatggcaaga tccaagggtg agccaagtga aagagttgcc 120
aagggtgggat ggagagggag gtcgctggag gtgagcagcc caggacctgc agatgagaag 180
tgggattagt ggtccccaga aatgccgtgt tccaagggga agccggcggg gggcaaagga 240
ctagcagagg gttcagtcgg aagccgccac cagggggcgc gagagagcag caagccgtaa 300
cagctcgcgt aaaaggcggg agctgggggt tcctgggggt tccctagaag cggacctcga 360
gacaagggtc tgggtgcaag cggtttattt gggggatggc t 401
```

```
<210> 91
<211> 401
<212> DNA
<213> homo sapiens
```

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 202
 <223> /replace="t"

<220>
 <221> variation
 <222> 322
 <223> /replace="t"

<220>
 <221> variation
 <222> 348
 <223> /replace="t"

<400> 91
 cgagcgggat gctgtggatg acaagggagc tgctctcacc tccccgcccc gagacagatg 60
 aggcactcga ggacctgcag caggcctcag agaggggctag gaccagggag gggctgcgga 120
 tggagagcag agtgacggcc tagaaaggag gttcccgagg gctctgggga ggcggaagag 180
 gggacgcggt gtgttgagat acggggagaa gttcagagca gcatgggcat gcaggtgcct 240
 gcagagggggc ccatctgggc tgcacccccag caggacaggg ccatggcctg gtgtgggttc 300
 ggctggctgc acagcttctt gcaaagtgtt tccccagggc ccttgggagt agaggtcttt 360
 cggaaggcac catctccaga gcgtgtttct gagtaactct g 401

<210> 92
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 7
 <223> /replace="g"

<400> 92
 tgctgaagac tgcccatggg tagcatcatg tggagtgtgc gttgtgttca ttgggcctgt 60
 gtgtcatgaa gacactgtgt actgttcata cagagaccct ttgatgagac accacaagag 120
 aaactccttg taggagcctc tggcagaaga aaaatgggtt tcttttgagc taccagatta 180
 aaaaaaaatt gtggttcccc tgaatcctat aacagcattt gtctgcctgc aaagctcagc 240
 tccagggttg taggccaccc aacttaagcc tttgtgaaca cttttttggg aactgatgct 300
 accctggact tactgaact atcttacttc atttttcctt tactcgtctt tatttaatag 360
 ttttattgaa ttatttatgt aaatctcacc tcatcatgct t 401

<210> 93
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 30
 <223> /replace="c"

Seq-Listing-P1425.TXT

```

<400> 93
caaggaatgc cctagaacaa acgcctggca catagtaagt tctaccaag tatttattat      60
tataataatt gtataaacat ttaacgactt ccttaaattg tttcctatta cttgctattt      120
tgaatagtgt ttcaattaat atccttgtga tatggttttg ctgtgtcccc aaccaaattct      180
tatcttgagc tgtaattccc acagttccca tgtatcgtgg gagaaaccta gtgggaggtg      240
atagaattat gggggcgggg ctttcctgtg ctgttcttgt gatagtgaat gagtctcatg      300
agatctgatg gctttaaaaa tggaagtttc tccacacaag ctgtctcttt gcctgctgcc      360
atccatgtaa gctgtgactt gttcctcctg gccttctgcc a                          401

```

```

<210> 94
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 54
<223> /replace="g"

```

```

<220>
<221> variation
<222> 356
<223> /replace="t"

```

```

<400> 94
ccccagctc ttatcacaga cactatacaa acaggaatac tttgtgttac cctatgttaa      60
tggttctctt attttgctgt gcatcagaat accctggaag gatgactaac atacagattg      120
ccaggctcag cacctgctgt gtctaagcca ggatatctag gggcatttct agtaagtacc      180
aggtaatgct gatgctgctg atttagggac aacactttga gaaatatggc tgtgtattat      240
gggtctattt gaacattcga ggaaaataag taggataaaa gtgatttggg acaacagtct      300
cattcttttg atatgattaa tacatatgac acaaatatct tctttggtaa tttttaaaaa      360
aattagatat aatagaaatt tatttttctc ttacacaatg g                          401

```

```

<210> 95
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 95
ctgtcactgt gattttcctt gcattgtcaa ttggctacag tattcttcat gatttctctt      60
gactaacatg ccttctgaca atgttgctctg aagctgtggc ttcatttggg aaatttctgt      120
gtgttttaga aaatgtaatg ctgtcatcac aatgggccat agacatttca gtctttctag      180
gtgttctgaa ggggttggct caaaaataca gggcaggcct tcacgttggg ctacttttag      240
tagtgacatc tttcagattt acctaaaata atggctaata tttgtctaaa aactttctag      300
tgagaaactg tactcatact aatggctagt aaaattaatg gcttactgtg tgtattgcat      360
gctcgctgaa gtgttttctg tgtgtccact cagttactat g                          401

```

Seq-Listing-P1425.TXT

<210> 96
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 96
 aagaagccac accttccatt tctcactgca aagagctgtg gtgacagaca tgtaagaatt 60
 ttatttttctt tttaaagtaa cttagattac agtagggctg ccatgagaaa ggtgacacag 120
 aagagcagac gagaggggagc agaaagggtgt atgcagattc tcttgtgtcc atcagcctta 180
 agaacagggg ctgctgagcc aagtcagagg ctgaagccac tcctagggat aagatccccc 240
 catgtctcta ctctggggac attagctcca ctgttttagac tagcttctca ctttcaccca 300
 catttttagg ccagtggaaa cttccataaa tccagggtcat acattcacat tcaaccgatg 360
 tgtgtttacc cactacttcc gatctgaaat tttgggaagc t 401

<210> 97
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 48
 <223> /replace="g"

<220>
 <221> variation
 <222> 61
 <223> /replace="c"

<220>
 <221> variation
 <222> 124
 <223> /replace="c"

<220>
 <221> variation
 <222> 145
 <223> /replace="t"

<220>
 <221> variation
 <222> 269
 <223> /replace="t"

<220>
 <221> variation
 <222> 314
 <223> /replace="g"

<400> 97
 ttccccagtg ggacgactct gcggcatgtc tgcgctggct cccaggggaac agcaccccag 60
 atgcccacac taataacctg gtctctcact catcctgact gggctgcctt cccttccttg 120
 tctgtcttcc cctttcttct ccctctcctc ctgggatcac ctccataca aactcctcac 180
 cctcatttcc ttgtcccaag ttctactttt caggggaaccc aggatacttt cctcctggtc 240
 ctaagaaaac ccaggcaaac caagtttcct gctctcatat aatttacagc atgttggggtt 300
 gaacaggcaa cttacaaaac attaaaaacg aagtgtaacg agtgctgagg tcaggagagca 360

Seq-Listing-P1425.TXT

tagactggcg gaaggcacag agccacaggg gaccctaagc t 401

<210> 98
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 11
 <223> /replace="c"

<220>
 <221> variation
 <222> 32
 <223> /replace="t"

<220>
 <221> variation
 <222> 88
 <223> /replace="t"

<220>
 <221> variation
 <222> 156
 <223> /replace="t"

<220>
 <221> variation
 <222> 305
 <223> /replace="t"

<400> 98
 ttccctgtct gtcttcccct ttcttctccc tctcctcctg ggatcacctc ccatacaaac 60
 tcctcaccct catttccttg tccaaggtc tacttttcag ggaaccagg atactttcct 120
 cctggtccta agaaaacca ggcaaacc aa gtttctgct ctcatacaat ttacagcatg 180
 ttgggttgaa caggcaactt aacaaacatt aaaaacgaag tgtaacgagt gctgagggtca 240
 gggagcatag actggcggaa ggcacagagc cacaggggac cctaagctag cccaggagag 300
 gtcccagaag ctgagctggg agtgactggg gtccttgcc ttttcttccc cttcttgaac 360
 ttccactcct ctctgtttca tttcttctct tcctttcaga a 401

<210> 99
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 83
 <223> /replace="t"

<220>
 <221> variation
 <222> 345
 <223> /replace="g"

<400> 99
 tttgggattc tggagtctat tgaatatttg caacttctag gggaaggctt ggatggtaaa 60

Seq-Listing-P1425.TXT

```

ttgtttaatt ttgatcattt tcagctccta gcacagtagc tgctacctat ctttcacctc 120
tggaccttcc tctcttgagc aggcagcatg catgtgttcc tggagaagtt tgcacacagc 180
ttgttgaggg caggggtgggc aaaaggatcc tgccctccaa atatcaggga tttgtactct 240
gactgctgat ggctgcttct gatcacaggg gtgctggcaa tgaaaaagcc attattgttg 300
ttgcatcttc ccacattatt gcaagcccgt ctacctctgg atgaactgag ttccacggta 360
tttaaaaagc tggcaccttt gttaccactt tcagttttct a 401

```

```

<210> 100
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 26
<223> /replace="g"

```

```

<220>
<221> variation
<222> 158
<223> /replace="g"

```

```

<400> 100
agggtaaaaa caaggacatt tcttaagaat ctatagcagt aatccaggaa aaaaataatg 60
tggctttaaa ttggaaagtg gtgggggtaa gatatcagat tcatgtgatc atgactaagc 120
aactccagga ttttctgaca gaaagcatgt ggcataagg aaagagcaga gtcaaggagg 180
gctctggaac ttgggccaga aaaactagaa ggataaataa ataataaaaa gtttagcagt 240
caaattcata acagtaaata aataaattaa aaataataaa aattaatgga taaaaagttg 300
ttatgtaaat tcagtgccct attccatctc ctaggttatt ttcactagaa gttaattaga 360
actctccagt tgtcccagcc tagacagcct gctagcccct t 401

```

```

<210> 101
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 290
<223> /replace="t"

```

```

<400> 101
aatgttatga atatatttat aacttttata gcaaataaaa taataatgca ttcagatttt 60
gacatggatg ctaaacaac aatgaaaggt ttgtgtctga gagaatcagt attaataatt 120
atttagtatt aagtaagcat tgtaagtaa ttaagtacta agaattgagt acaatatttt 180
aaaatgtgac ttacagaga aagagagtac aaattgtata aaattcaaga acacataaaa 240
ccaatctata ctgatgggca tcagaatagt ggctatcttt tgggaggtgc tgactaggca 300
cacaagatgc cttcttgggg gttgtacatg gcctgcatct tgacttgggtg gtgattgatt 360
acagggttgt gaacatatgt aaaaacttca tcaagggtga c 401

```

Seq-Listing-P1425.TXT

<210> 102
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 265
 <223> /replace="t"

<220>
 <221> variation
 <222> 398
 <223> /replace="t"

<400> 102
 aatcaagtaa aagaatgggt tgaataataa catattgata acagataata caaacttttt 60
 tcattaagct tcagaagaat cttagtagaa atgcattggt tggaaatgcat atgctttgggt 120
 ctcaataaaa atatccggtt gcagagatat ttcattgtgt ttgaactaac aggcaaaaaa 180
 ttaaaaattc attggtatac actaattcat gcaattgtat attttggagg taagtgtaat 240
 ggcataaggt tgctgtaatg gaaccgattg gaaaatgatc tcttggagaa aatttattgc 300
 tggtcataag atttcttttg tttagaaaaa tgctgggttt agtaaaatct gaggcactaa 360
 atgaaagtct gctttaataa aaatgtggat ctgagaactg t 401

<210> 103
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 26
 <223> /replace="g"

<400> 103
 gctctaactc tggggacttg tattaagccc tgactttggt ctctgtctcc ttgaagttag 60
 gaatccactg cactgagggt gccaaagtgc tcctcaatca ctgggtccta cagtccaatg 120
 ggcaatatca gcaaaagtgt tttgtagtgt agtgacagtg ggattcattc tctttcacat 180
 atgtccacag cagtgggtggc agcagctgca gcaaagtgct agtgggtgcc aggggtgctg 240
 cccctctgca ggtgttcagc accgtgggtg aggcaacaca gctgtggggg gcagggggccc 300
 ttgctgatga ctgtgtgcat ggtcactact gaggtggtgt tggctcaggg gtggggcact 360
 ggcagttgta gttctgggtg ctttctctgt gccccacaag c 401

<210> 104
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 249
 <223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 253
 <223> /replace="g"

<400> 104
 aattttgttt cctggaggca ctctgatacc tattactgta tcaatcagga tccaggcaga 60
 aagtagacat catgcttaaa ctgggtaact tgaagataat ataggaaaat agcaagcaat 120
 agtctagaat cctaaaagtc tgaatctatt atcaacctta ggtgtgaatg ggcaagggga 180
 gggagtggat tctgtcatat aacacatgag tgcaaaagag ctgtgtagtg ctgcttgatg 240
 cctattacct ttatgtaaag acacagccag ctcacgtgag ctcttaggaa gggggataga 300
 gaaataaata ccctgacctc atcttcctgc cctctgggct gctggcctcc aaaccagaag 360
 cagggcactg gagcttacca acatgggtaca caaaggctgg c 401

<210> 105
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 85
 <223> /replace="g"

<220>
 <221> variation
 <222> 145
 <223> /replace="g"

<400> 105
 gtgacacatt gaattttatt actgactctg tgtttcaaaa cattttgggg actgaaaaac 60
 ccaccaggca aatctcaggc cttaaaaagc agttaaaactg aattgcaaat aaaaggctta 120
 gaaagtcctt aaaatcataa acttagcatc tccaatagga caaatgaact ttgtcttctc 180
 atctgagtta acagatttgg aagaatcaaa atcttttctg ttgtatagac tacatgctac 240
 catttccaca ggcaagctgc ccctaaattt ggaaaacttt tccttctgaa accaccaat 300
 ctcttttagct tgatttgggc aaccgaatct cttaggcttt tgcctctttg tgtccaaaac 360
 tagcactgtt cctgagagca ggctatcaat catttacata t 401

<210> 106
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 38
 <223> /replace="c"

<400> 106
 gcgtcgctca cgctgggagc tgtagactgg agctgttgct attcggccat cttggctcct 60
 cccaagggg aagcttttta agctttttat tctaaggact attgaggtca tttcagtgat 120

Seq-Listing-P1425.TXT

caaagtgaga tttattgttc actaatcggg ctccatatgtg atcttatatt gcatattagt 180
gcagatttta tataatttct attcacaaca gctattgatg aaacaatggt tcccacattt 240
ttgtcctttt agtgctaaaa attaaaacca aagttagggg tatagaattt aggattatag 300
aactagggat ttgttgggtcc ttaaataagct ggggtgctgtt tgttgaaaga gtgattctac 360
tatgaaattg catagcatgt tgcaagttcc atcataatat a 401

<210> 107
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 198
<223> /replace="g"

<220>
<221> variation
<222> 357
<223> /replace="g"

<400> 107
aactaacctc attctatgcc cacttaacct ttctaatagc tttagcactg aatgactcat 60
atgaacccat ttacagggtg agaaaattga ggcctagaga agttttgagg cacatctgct 120
tatagctagt gaaaagtga ttaaaactct gaactagtct caccttatag ccagagctat 180
ccatcatggt agcacgcagc atctagggtga gtttgtgctc tggagagttc atgtttttca 240
ctgctcacag ctctgtgtgt ctagggtgga cgtaatgggtg aacagactgg gcccgagatt 300
aagattacat gattggaagt gcaagttcat cacttttggg gcaccttggg caaatcactt 360
gtccttcata gtcatttgtt tctgcataag taaaattggg a 401

<210> 108
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 42
<223> /replace="g"

<220>
<221> variation
<222> 45
<223> /replace="g"

<220>
<221> variation
<222> 392
<223> /replace="g"

<400> 108
gtctcacctt atagccagag ctatccatca tggtagcacg cagcatctag gtgagtttgt 60
gctctggaga gttcatgttt ttactgctc acagctcctg tgttctaggt ggtacgtaat 120
ggatgaacaga ctgggcccga gattaagatt acatgattgg aagtgcaagt tcatcacttt 180

Seq-Listing-P1425.TXT

```

tggagcacct tgggcaaadc acttgctcct catagtcatt tgtttctgca taagtaaaat 240
tgggataata ataatagtgg ataatagtgc tggctcatag agttattggg agttaattac 300
atgagttaaa tcatgtaaaag tgttgagggc agtgcctagg cacgtagtaa gaaatgtgag 360
tgattactgt ttttataacc ttattgttaa tactaatttg c 401

```

```

<210> 109
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 139
<223> /replace="g"

```

```

<400> 109
atagtggata atagtgctgg ctcataagagt tattgggagt taattacatg agttaaatca 60
tgtaaagtgt tgagggcagt gcctaggcac gtagtaagaa atgtgagtga ttactgtttt 120
tataacctta ttgttaatac taatttgctc cagatggcat ggtatacagt ggtaacagct 180
gatgacttct ctccatttga ataaactgtg ctaacttaat acagtggctc tctggagcac 240
tacagggtcta gccaaccctg cagcacattt aagggtctcag ttacatcac ttcctccagt 300
atctcattgg ccaaaccaag tcatgtggcc aatctcatca tccatggaag ggggatcata 360
tttgtgcat taagtttcat gatagagaga aagagggatt g 401

```

```

<210> 110
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 110
gccttggctc ccaaagtg tgagactaca ggtgtgagcc actgtgcccg gccagttttt 60
cttttattct ctgtctgctt ccttcatttc tcaaaggcat ctcaaactca gtgggcccaa 120
aaccaaaagtc aagctccatc agaacatcct gctacttcca actttaaaat atatcttaaa 180
tcacaatttc ttgctacatg caaccctttg gttcaaaacta ccatcatccc tcgcttgaac 240
ttagaattga ttttctgct tcagtatttt tttaaagtat gaaatatttc aaataaacca 300
tgtgtggctt tatacttttt attacataaa aaggatgaaa atctgccggg tgcactggct 360
cgcacttgta atcccagcac ccatcccagg ccgaggtgga t 401

```

```

<210> 111
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 183
<223> /replace="g"

```

```

<220>

```

Seq-Listing-P1425.TXT

<221> variation
 <222> 200
 <223> /replace="t"

<220>
 <221> variation
 <222> 313
 <223> /replace="g"

<220>
 <221> variation
 <222> 332
 <223> /replace="t"

<220>
 <221> variation
 <222> 343
 <223> /replace="g"

<220>
 <221> variation
 <222> 390
 <223> /replace="t"

<400> 111
 tttattttct tcaaacatt aaaggaaga actaaaaaca aaaaccagca aacaaaataa 60
 tatttgtgaa aagtgatttt caaaaatttc caaactgctg tggggtgatg agtgacacac 120
 atttccataa agtttctcat tctatctgtg tctttcagtg tgaacaaaaa atttctttct 180
 aaaatgtgaa gattttactc acttcactac tacctccttt agtggttgga agtcatttga 240
 atttttcttt acttttctag caagaattct ttgttttgtg ctatgactca cgtgaataat 300
 agctcctggc ttaatctgaa gctctgtgtt ggctctgccg gcatgagaca ggaagacctt 360
 ctccactttt gccagtaat tttcattctc cccccacagg g 401

<210> 112
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 18
 <223> /replace="g"

<220>
 <221> variation
 <222> 40
 <223> /replace="c"

<220>
 <221> variation
 <222> 157
 <223> /replace="g"

<220>
 <221> variation
 <222> 177
 <223> /replace="t"

<220>
 <221> variation
 <222> 372

Seq-Listing-P1425.TXT

<223> /replace="t"

```

<400> 112
ggggccacca tctgtgtata tttgcacaac ctccccataa ctgcatgggt tttctctgag    60
tactctagtt tgctctctca ttccaaagtc atgcacatta ggttaattgg catgtctaca    120
tggactcagt gtgagtgaat gtgagcatgg gtgtgaatgt gctctgccat gagagactgt    180
cctgttcagg gctggttccc acctcactcc gtgagctgct gggatgggct ctggccaccc    240
atgaccatga actggaaata agcaggtaaa gaattatctt acttggtttt attaatcttt    300
cttaaagtga tgtatagttc acatttatct caatgtttta tattagaaat gttttgcctt    360
tatttagaag tgtggtatct tgtgacaga aatctgccat a                          401

```

```

<210> 113
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 6
<223> /replace="t"

```

```

<220>
<221> variation
<222> 30
<223> /replace="g"

```

```

<400> 113
agagactgtc ctgttcaggg ctggttccca cctcactccg tgagctgctg ggatgggctc    60
tggccaccca tgaccatgaa ctggaaataa gcaggtaaaag aattatctta cttggtttta    120
ttaatctttc ttaaagtgtat gtatagttca catttatctt aatgtttaat attagaaatg    180
ttttgccttt atttagaagt ttggtatctt gtgacagaaa atctgccata ggaacttcat    240
tatagtttat atcaattagc ctatggaaaa attgtttttg ttatatgtca ttttgcttaa    300
agctgcagtt tccaggactc tatcaacaac attaagtgag gactttgtgt gatttgcggg    360
gccaagtgca aaatgaaatt gtaggggtacc ttgttcaaaa t                          401

```

```

<210> 114
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 114
cttaaagata acaaacatat atgtttaaca ttttgagttt ttaatctttt tttgtttaga    60
acctctttat ggaaacatgt ctagcttact aaggtaaaat tgactcactc attgactcat    120
ttagcaaatt atttattgat ctctatttta tcagacaggg tggaatatag aaaaggctctc    180
tgcccttctg gagtttctaa cccagtgtgg aaaactgata atacataact aaataactca    240
tataccagtg taattacagt ggataagtgc taggaagaaa atgattgtga tagtaggtaa    300
ccaggagggg tgtacttgga taactatcac ctcttgatc ttgactcctg gcttgatctc    360
cctcttagag ataggcaatg caagtgggtt tttgtattag c                          401

```

Seq-Listing-P1425.TXT

<210> 115
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 128
 <223> /replace="c"

<400> 115
 tcctttcttag atgatctatt caaagtgtgg ttatctactc actatTTTTTg tttttctctg 60
 tgcaggagggt accagatgcc tctagtcagc cgtcttatag CCCtcctat atcgTTTTaa 120
 tttttgtatt ggtcaaaactt gcaaaaagggt gtctactttg ttgatgttaa aattttttcg 180
 ttttatcgaa ttttgatttt ctaattcaca cttcaggctt ttatatttat ccattctgtc 240
 cttgtagctt agttggattt attttgttgt tacttcctgt gcttctttgt ttgacgtatt 300
 agtttactta ttacatccc caccagcaat gcacaaaagt tctaattccc ccacatccta 360
 ccaacacttg ttactttctg ttttgTTTTt ttttaattata a 401

<210> 116
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 116
 aagggtgtat cacaacactg ggaagcatat tccttaacat taggagttaa tgtgatttag 60
 ctgaagagag aacacctgta ttagttaaaa gggaatattt agcagcattt aaacaaaagc 120
 tatttcacat gtcactaagt atactataag aatttccaga aagaagtatc atcctttgtc 180
 taatagttca gaggatttct attagtaa at gaaaaatgac agcctcattt tatcctccaa 240
 atatgtcaaa attatcttga gttgttgggt accagaactg ataggtgtca tgtatttaag 300
 cccatttgaa aaatacattt caataatgga gtgagactct gtctcaaaaa aatttcaa at 360
 gtcttttctc aattgaaaaa acctattatt tctagataga t 401

<210> 117
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 39
 <223> /replace="t"

<400> 117
 cagtgccttg atcttggact gctcaacctc taaaactggg agaaataaat ttcattattt 60
 ataaattacc cagtctgggt atgtttttta tagcagcatg gatggacaaa gacagtgtgt 120
 aacactcagt atcaacaaac tccaaggaaa tgggcaccct gatactctat tgtgtagtgt 180
 aaattcacac aaattttgga aagcaatttg gcaatatata tcaaaatctt aaaaaagttc 240

Seq-Listing-P1425.TXT

taggcacaag aaccctgttt tagaaaattaa gtctatttga gtagtctgca ggaagttgtg 300
 tctgtaaatt tgtttatcac agtttctgttt atactggaag ataaccctca agaaatgtta 360
 tataatctaataat aatagaggat tacaattaca tgatgaaatt t 401

<210> 118
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 118
 tttatttagt tctgctctga tctttgttat ttcttttctt ctgctgggtt tgggttttgt 60
 ttgttcttgt ttctctgggt ccttttcagt agttaggggt taaattaaac tcagaaatca 120
 gtctatgcat accctgacct cagagatgat gctgttccac cacaccttg ctgggcttgc 180
 attctacttt ggaattccac atcttgagaa ttatctcttt aatggcaaaa gtgccaataa 240
 gcctttccca attttctcca ttgtgaaagt aacatctctt atatcataat gtatataata 300
 tccatgtcaa tgtatttttg gtgtaaaggg tgaaagttag gaagtatcca gttggaattc 360
 tgtgtaaagt gcactgaatc tggggaggga gagaatgctc t 401

<210> 119
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 1
 <223> /replace="g"

<220>
 <221> variation
 <222> 76
 <223> /replace="t"

<220>
 <221> variation
 <222> 157
 <223> /replace="t"

<400> 119
 agtttatttta ccttttctag gatttttgga aaagagaagg gccttgcaga gcccctctta 60
 ttaataaccc ctgcccaccc cccctacttt tccagatcct ttccctttct aaggagaggt 120
 cctgcaggac gcctaccaga gccatgcatc agacagcggc ttctgcccag tcacggctgg 180
 gtgggtgtgg ccagcttatg agaaagttca cgtaagaggt tgatttaatc tctccagttt 240
 taaaatgtgg aatgggtatg tctgaatggc tttgaattag aataaggtct aaactgattt 300
 gagagcaagg cctggatttg aaaggagag tgatgaaatc aaagaatgtc agagccaagt 360
 aatgttagag atttaacaag aactgcatgt attccctgtt a 401

<210> 120
 <211> 401
 <212> DNA
 <213> homo sapiens

Seq-Listing-P1425.TXT

```

<400> 120
atctggcaaa agaaagtcac tcagattaaa aaagaataaa ttaaattatc cctctttgat      60
gatgacataa tcttacagct agaaaaacat aaagactcca ccaaaaaact cttggctccg      120
ataaataaat tcagtatagt tgcaggatac aacatacaaa aatccataca tttctatata      180
ccaataataa actagctaag aaaggaatca agaaggcaac ttcattttaca gtagcaacaa      240
agaaaacaaa atacctagga ataaattaac caaggtggtg aaaatctcta aaagtaaaac      300
tataacacat ggataaaagt aacaaaaaag cacatcaaca aatcaaaagt caccgcatgc      360
tcatggatca gaagtattca tatcattaat gtttctatac t                               401

```

```

<210> 121
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 328
<223> /replace="c"

```

```

<400> 121
ccaattgttt tctagcaatg aaaggaatca tgtaaaacca cactagttac cttaatccca      60
gttagaaaac actagaggaa ttcgttatga aacccaaaaga catgatgacc ttcacaattc      120
tccaggcaag ttcttcatgt accatgacaa gtgggactga gagttttggg aaatgcagaa      180
gaaatgtgtc attttgaaga attctatgtg gaagattggg attctagtgg cttaaaatga      240
tgtggagtga aattgttttc aatgaaaata tttatcaaag ttatatcatg agtatatcta      300
accctatgtt tactgtatgt gtgctatgat atgaatatat tttgatttag tatttgatca      360
gtctttactg attgttgaga atctactaac tcagtgtctt t                               401

```

```

<210> 122
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 16
<223> /replace="g"

```

```

<400> 122
gaaaagtaaa gtggaagtag gcataaagat gacactgcag gtctcaattg gagattcaaa      60
gtcagtcatt tccccagtta ggctctaaca caatgtaaca tgatgagggg agggatttgc      120
taatcacaac cagagtcacc actgagtga ggcatgttct atgccaggct cccaaattaa      180
ctaccctcat taatttccca atcttgcttt tggggagcca caccacacct cccttgatca      240
cactagactg tagcaaagac agatgataac aataatggtt aatatttact gagagcacac      300
caatgccagg cactgctcta agccttttgt gtgttttaac tcattttatt ccctacagtg      360
accttctgag gaagtaccta ttatgatctt tatttttcag a                               401

```

Seq-Listing-P1425.TXT

<210> 123
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 123
 acctcaccca gctcccatgc aaccaaaaag gccagttctca ctcccactgt gcgcctgcca 60
 acagcaccaa gtttatttcc aggcagtggg taagcagtgc tgagaacttg ccccgggcta 120
 ccagcctccc agctgagaga gcaggcaagg cttttgcgct tccctgcctg ttgagtctgc 180
 ccacaagatt cacgccatcc actgagttct ggtcaggaag cttcatgttt ggttggaatt 240
 attaccaagt ttgtctagag gtttccttct ccctgtgggc ttttccaagt tcccctggta 300
 gccctcccca aggacgccta tgagacaagt cagaaatggc ttccctgggg acccagaaat 360
 cccacggggc ttttcctgct gcttcctcta ccctgtattt t 401

<210> 124
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 182
 <223> /replace="t"

<220>
 <221> variation
 <222> 285
 <223> /replace="t"

<220>
 <221> variation
 <222> 325
 <223> /replace="g"

<400> 124
 aacagaacaa agacataaaa acagataatg gtatgagtac tgcagttgaa atgcaattag 60
 ggattcttta gcctacttgg tctttacacc tcttgccctg ttcccatcc ctatgtggca 120
 tcacaagaaa tcttacagcc tgaaaaatat ggaacataaa acactgttct gtcatttacc 180
 acacaaacag ggtcaatttc tagaataaaa gaagacattc ttaataaatt tattctggga 240
 aaaagtctta aacgggtgat accaggaaaa ttgggacata cggtcatcct gggtctatac 300
 cacaagagtt gaaatgagag gaaaatatgg ttaagtgaga agaaatggat tccagcccca 360
 tttctatcat ccacgagctg tgtattctta aaaagttact c 401

<210> 125
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 81
 <223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 212
 <223> /replace="t"

<400> 125
 atgactggca cccaaatagg cttgctgggt tgggtgactg tcaggtttcc aattctttcg 60
 atgtgtctgt agccttggtc aggccagggtc tgccttgtcc tcctggatgg acatttagga 120
 aatgcatcct aaccccatca gcacagtcac gactgggtct tcttttccca tatgtgtgtg 180
 ccgccatctg ggacaactta cccattgtct gctagggcct ttgatgcttg attatagga 240
 aagaggaaaa catcagctac aatagagcaa tctgttctgt ttgggacatc ttacaatctt 300
 ttttcctcct tttctttttt tcaatgcaca ttttttgat catcttcaca tagggatgta 360
 tattggtaat ggaatgtatt ctagaattct ttctcttgaa a 401

<210> 126
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 348
 <223> /replace="t"

<400> 126
 taaatattat atgctattaa ttctaagggtc ctgacataat actctgccat taagcttttc 60
 atctggagggt tgtatattgt tttgtaatta tttgctaatt aatcaggcac tagttctaga 120
 atttaggaaa caccagctca gtagcttctc aaccatgatg aagagtagac agtattagaa 180
 aaacacagta gtgggagagt agaagattgg gggaaggaaa agagagtccc taagcacaaa 240
 gtgtgcttct ctacctctcc tccttctcca ttctgtgctt ccctggcaga tcttctgggc 300
 gaggagccaa gagaagggtt gaaagtgtgt ctgcagctag ataaacaact ttagtggaga 360
 gatggatttt ggcgtcactt aggagggtccc acctaatttt g 401

<210> 127
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 56
 <223> /replace="g"

<400> 127
 ttcaattttg tcagtgtttg cttcatatac ttgagggtgt ctgtgaaagg gctgtatata 60
 caacatgatc tccaaatgca gattgagcca agaaatgaaa aaatgagtca gacaaatcca 120
 gtttgtcagt aaatgggtgat ttatttagagg acttacagac agaaatgtgg tcttgggtgg 180
 ctgcaagcca ggaagaattc tgcagtgcaa ccctctaggc ccagggttta tatactcttg 240
 gtgggggggta agtacatatc cctggaagaa atgtgtaggt gacttaaaga atactactgg 300

Seq-Listing-P1425.TXT

catcacaacc tatgatgcat ccaacatcaa gggctgtttt ggaggaaagg tgaaacttac 360
aataaatagg tattttctaca tagggagtaa tatatcaatg a 401

<210> 128
<211> 401
<212> DNA
<213> homo sapiens

<400> 128
acttttcactt tactccattt ctaagtttga tattctggta gaattaaagt aagagttttc 60
tttctttcat ctctttttta tctctctcat attgatttct tttaatggaa aattttttta 120
tttattattt tatcgttccg atagactttg ccgagcatct ctctcaaagt ctgtatccag 180
attatttcct caattgtctt aagttggctg tgctatatca ttagtttatg tctttttatc 240
ttcccatgta aatactttac taattctggg accagaatag atatctttgt atgtgtttta 300
gttagctatt gctgtataat tccagtatcc ataggcgcac ttgtttaaag agtggctcat 360
ccgtctatgg tcacatgaaa ggaagtacaa ttcagggttc t 401

<210> 129
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 157
<223> /replace="t"

<400> 129
aaacattgta atttaagaat ttcttttgaa atttttattt tcctctgcca gttaattcag 60
tgttatttta ttttaccagt tgggatcaat aaatctttgt tacagtcac aaccatcact 120
atgataaatt ttgaatttca tgagctactc actcaacatt tttaaaaatta tttcaaaatt 180
ggacacttaa gttcatctat aagctgggta taggaaacag ttaagaatgt gtaggtatca 240
gtgcaaactg tgtcttctg tacctagaaa atcccctgaa tctttctccc attccaagga 300
cagaatttct ttttctact ttgcactttt tccttctctt taattccatt aaaaatgaagt 360
tgcaatctct agatggcaga tatttcttaa gcacaaaaaac t 401

<210> 130
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 387
<223> /replace="g"

<400> 130
ccacagcgtg tgatctcttt gcacatgctc acccccactt aaactttccg tcattagtga 60
aaacatcatg aggccattac cagatgcagc tgcctaattt tggacttttc agccaccaga 120
accatgagcc aaatatacct cttttcttta tatattaccc agcttcaggt attctgttgt 180

Seq-Listing-P1425.TXT

agcaatacaa aatagactga aacagtgtgt gaatgtggaa aagtctggga atgtgcaagt 240
aggcagtaag atgctgtcta accaaagcct gaactgaaag ggcagtgatg ggtatttctg 300
ttttcccaaa gatttttcat atcatagtgt aattatatca acaagcaccc aaagttttca 360
gaagtttcac aatatgccta cattaaagca taccagatta t 401

<210> 131
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 46
<223> /replace="t"

<220>
<221> variation
<222> 69
<223> /replace="g"

<220>
<221> variation
<222> 108
<223> /replace="t"

<220>
<221> variation
<222> 323
<223> /replace="c"

<400> 131
cttcaccttc tcaggaataa cctgatagtc caccaggcag acgggggttg cgatgcttcc 60
agcactgaac actctctggg ttgctagaa ctaccaggc caacaccca ccactttttt 120
ttcctctcat ttttgtaatg tggcttctta taaatttaaa cttgtttcag catttgcctt 180
gttgctgtc tggaaataac aagttgtttg ttttgcttta taatttgaga aacaggctac 240
cattcccttc ccatcatgga aaacattctg caatgatctg tatcatcttc caatcatggt 300
aatcactgac taacctgttt tcaccagaga ggttttttat ctaattggaa gtttgagcct 360
gaaactcaga gaagataaat ggacaatttt ggtctcacgt g 401

<210> 132
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 141
<223> /replace="t"

<220>
<221> variation
<222> 337
<223> /replace="t"

<220>
<221> variation

Seq-Listing-P1425.TXT

<222> 392
 <223> /replace="c"

<400> 132
 tttttactcc actcttgcta tcttacctcc tgcttttttt ttcagtgtat gtctcctctg 60
 gtcacatgat tatatttatg ggggtgcactt gatcctctac tgtgttattt tctattccta 120
 catgatctta tttagtaccg gggcttttaaa gaccatctgt tgatgactcc caagtcagta 180
 tttctggctc cattctcctc aaatggtaaa ctcaaactga atatctcctt ttggatatct 240
 gaaaggcatc tcaaatccaa catctcaaac attactctga gttctccacc ccatatgctc 300
 ctctaaaatc tttcccatgt tattaaatgg tcccaccta aacacacacc taagagcaat 360
 tcttcactct tctccttccc aaaagatcta catctaattt a 401

<210> 133
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 133
 aaaaaataaaa gacaaaagta attaatggc aaataaaaag tagagtggat cgtaagact 60
 aaacactatt tttaaagacc agtataacag acaaatgttt tgatggtgaa agagagtga 120
 agtgagagag agaaagtga tgagaaataa tataaacaaa caatatcagg aaaaaataat 180
 ggagcacaaa catataatga agtatcttag aaactatgaa ttgatatgaa caactgtatg 240
 ccagtaggtt aaaagcccat gcaatggaca attttctagg aaagtgtaaa tgccatgatt 300
 agtcttcaca accataaaac aagtattaat acaaattgaa atggtaatca gtatcttatt 360
 cccaaaggca tcagaccac atgggtttttc cagtaacttt c 401

<210> 134
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 5
 <223> /replace="t"

<220>
 <221> variation
 <222> 45
 <223> /replace="c"

<220>
 <221> variation
 <222> 266
 <223> /replace="g"

<220>
 <221> variation
 <222> 341
 <223> /replace="g"

<400> 134
 ggcactattc ccaatagcaa agacttggaa ccaacccaaa tgtcgaataa tgatagactg 60

Seq-Listing-P1425.TXT

```

gattaagaaa aagtggcaca tatacactat ggaatactat gcagccataa aaaatgatga 120
gttcatgtcc ttgtttggga catggatgaa gctggaaacc attattctca gcaaagtacc 180
acaagacaa aaaatcaaac atcgcttggt ctcaactcata ggtaggaatt gaccagtga 240
aacacatgga cacaggaaag ggaccatcac aactggggga ctgttggtggg gtggagggag 300
gggggagggga tagcattagg agatatacct aatgctaaat acgagttaat gggtgcaaca 360
cagcaacatg gcacatgtat acatatgtaa caaacctgca c 401

```

```

<210> 135
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 323
<223> /replace="g"

```

```

<400> 135
gaatccggga ggcagagggt gtggtgagct gagattgcgc cattgcactc cagcctgggc 60
aaaaagagtg aaactccatc aaagaaagaa agagagagag agagagaagg agagaaggag 120
ggaaatatta tgaaaaaaag tgagacagag aaaaccatac agaccagagt gaaacgcagt 180
taaagcta atccgtgggt agaggtcaga atatagatac cttgaagact ggctgggttaa 240
ggaacccaag gaaacctttt gaatgtttct tgacatgggt gcagattaca tgagtatata 300
cataagtaaa aattcattat gcattttatc gtatgtaaac tacacctcag ttttaattgaa 360
aaatagatct tatatatctt ttattatggt tattgacttg a 401

```

```

<210> 136
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 136
atttacaaaa tatatctttt cccttcttta aaaaaacttc atagtaaatt atgcataaag 60
cttaccatca tatcattttt aagtgtacag tttactgggt ttaagtacat tcatgtccat 120
cactgccact gatctccaga actctcttca tcttgcaaaa gtgaaactct atacctcatt 180
cctccctcca tttatgccac atcaaaccac cattctatct tctgtctgta tgaatttgac 240
tattctagggt atcttatata agatacctta tataagggtac cttatatctt atataatata 300
atctatatta tataagtgggt atcttatata agattccact tatgtggaat catatagtat 360
ttgtcctttt gtgactgggt taattcacat agcataatgt t 401

```

```

<210> 137
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 114

```

Seq-Listing-P1425.TXT

<223> /replace="t"

<220>

<221> variation

<222> 281

<223> /replace="c"

<400> 137

```
aaataagaag aaaaaaagga gtcattctctg ggactacacc ttgagaatct caagtttttaa      60
tggatggctt aggaattact caagttagga ggcagaaaga gccagcagag aagcaggagg      120
aaaacaggaa agagctgtga cccagagtaa agggccatag aggtcagctg tatcagatgt      180
gaccaagagc tcaagtccaa aaaggctctga ataataaccc ttgtgatggg gaggttatga      240
ctgacccccca ggggctatatt cattgaaata atgggatcag aggacagttt ggagatgggtg      300
gggtgtgact gggaaataag aaagttggaa tagcaagtat ggaggcctct tcccagagag      360
gaagaggtag catggcctct ggagccagac aatccaagtt t                                401
```

<210> 138

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 124

<223> /replace="c"

<220>

<221> variation

<222> 254

<223> /replace="t"

<220>

<221> variation

<222> 343

<223> /replace="c"

<400> 138

```
tgtccatattg ttcacagcag agtttttgat gtgtttgatt gtggggtgat accgcagacc      60
ccactgaggg tataacacac accaggtgac ttcactaaaa tccccacggg gaaacacatt      120
tgcggccctt ttccctgccc ctggattttg ctaaggatct ggggggttct gtggaagtct      180
gaaggtcagt ggacaggacg agtttgagaa tgcgcatttg gaaactgtac ccctcaagtg      240
acaaggaaat gagcgtggat ttaagaagat aatgaccgtt ctgtgaagtt ttaatggaat      300
ttttaagcaa gaaaaccctt accctgtgaa aacttcagtc tgcacagaag aattgggtggg      360
agaaggaaga ctttgcctaa gatcacttta tatagcacia c                                401
```

<210> 139

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 142

<223> /replace="t"

Seq-Listing-P1425.TXT

<220>
<221> variation
<222> 374
<223> /replace="g"

<220>
<221> variation
<222> 395
<223> /replace="g"

<400> 139
tatacacaca aggaaacccc ctcccccaaa cccaccagaa tattgttttt acctctgggt 60
gttgagacta tagagtttta atttctttat atattcttct gtttttctag aataaatgca 120
tattatttta taattacaaa ggctactttt taactcttca taatcataac ttataatggg 180
aaaatttata taaaatttca atctgtgcat atgtaaataa attaaactttc ttgttatgca 240
tttaagttag ttataggttt ccaactgttt cttcagacaa tgattatcat tgtgtgtaat 300
ttcaacctag taactcaatt gtttctgtag aattgatagt agaattaatt actcaatagt 360
tatggatatt ttaagactac ataaatgcta ttcaacactc t 401

<210> 140
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 1
<223> /replace="t"

<220>
<221> variation
<222> 160
<223> /replace="g"

<400> 140
cctagtgcac atgtattgca gtactagaat tgtaaccca taccacatg ggaaaaagtt 60
tatcaactag agtacagtgc ttatgtacaa tgttttttgc aatctgaggc tccactgatt 120
tctaaaatta cttagggtcag catctttttt cttcacccta ttcagtgaag tgtttcatcc 180
gtttgtaata cagtttagatt atttgtaaca gtctgaattt cattttgaga tccctgacct 240
gctaaattat acttttaatt ggcacatatt attgttccta ctattcactt ttttaatgaa 300
gtgaacttca cagatatgaa attaaccatt tgaatgtgaa caatttagtg gcatttagga 360
cattcacagt gttgtgtaac tacctctaac tagttccaga a 401

<210> 141
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 122
<223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 212
 <223> /replace="c"

<220>
 <221> variation
 <222> 399
 <223> /replace="g"

<400> 141
 gttgctgtgt cttcgttttt ttcagataac ccccaaatac gtgaataaac tagttcagag 60
 tcacacggcc agtaagaaat aggggtcaaga tctgagctca gcaaagtctg tctgcttttt 120
 tctacatcat accatgcttt taagcttaat acataagaca gattatttcc tgcttcattt 180
 agtcgtccta tttctgcctt atttagaaat agttccaagg cgatttagtt tcttgcaactt 240
 ttctaccctg ttgctgctgt tttatttttt ttatacttca tttcacttga actcctcacc 300
 tccagcttca tttatttctt tgggggtcaa aaagaaaatg attataaacc aaggaagggtt 360
 gcaatgatcc tttccccag ggaattttcc cagggtctgaa g 401

<210> 142
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 142
 cttgctttga ccaatgggat gtgagtggac ataatatata ccagtccaag tagagaattt 60
 aacccaagtc aaacatgtgt ttgggtcagt ctctcactt ctgcccactg tcctaagagg 120
 agttttctcc aggtaaacac tactgcttca acctgggtcc cagaaagaca aacacatgct 180
 ctagatctgt gtcacctacc attgccagct gacccaacac agaggactta tgaaaaatac 240
 ataatagttg taagctactg agatttggag ttttttatta tagagcattt tcatagccaa 300
 agttgattaa ttcatacatt aaacatcttc ttaaccacaa gacttccagg gcattcagtt 360
 tgctgatgtc ctctgtagat ctcaaaatta attggcccta g 401

<210> 143
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 3
 <223> /replace="t"

<220>
 <221> variation
 <222> 273
 <223> /replace="t"

<400> 143
 aggtggaatt ttgaatcaca tgggaagttt cagtgtttca aagcatgaag tagagcttcc 60
 ctaaccctg ctatgactac tctgctttca gtgttggaag ggaaatgatc ttttaaaagg 120
 tggaatatgc aaaaggggaa aacagttctc ctctgtcttt tcctgggggtc gggaggggga 180

Seq-Listing-P1425.TXT

```

ttgaggcatt tccccaaaga tccctgctaa ctctgtgacc ttccaagatt cgtaaactgt      240
gccagagaag gaaatgtacc tgcaattgct cactggggta atatttaagt caaggctgga      300
tttcaagctc aatttaagtg ctacattttg atttttttta agaagaaaga tttgcctgta      360
aaaatgctac ttttcttata caagatctat aaacatgctt t                          401

```

```

<210> 144
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 217
<223> /replace="g"

```

```

<220>
<221> variation
<222> 353
<223> /replace="g"

```

```

<400> 144
ttccctaattg attagtgaca ctgagcatct tttcatgtgc ttattggcca tttgtatatc      60
tgctttggggg atatgtctaa gtcttttacc cattttcaaa attgatacgc agcagatgta      120
catattttcg gaattcacat gacaatttga tacacttata taatcaaadc agattaattg      180
gaatattcgt tatcttaaata acttttcttt atactaagaa cattcacaaa attatctttt      240
agctattttg aaatatacaa tgaattaata tctgcagtca taccacctga atgcatctca      300
tctcatctgc ccatttttta attgggctac ttatatTTTT gttgttgaat taagaaaaat      360
tagattcata gcttaattat gatgaatgta tttatcatct c                          401

```

```

<210> 145
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 256
<223> /replace="t"

```

```

<400> 145
gaatatactt ttatgctcaa acataaaaatc tggttaataag gttattatta tatctatatc      60
tcagcttcat ccaatttgct gtcgtctctc tttattatat acttgattga tggactgatg      120
caccatggag gcattgctga attgaagaga agagacatcg ggggtggaatt aatcatgcag      180
cagattgcta cataactctt atttcccatg agatgagaat cacagtgata aaccatgaag      240
acagctgtat gtggcctaaa actaagacca gaatgctcaa ataagttcca atttatcttg      300
tttccagaga taaattagta ggaaggggtg aaaaggagaa atatttgtga atcatacagt      360
agtcacagct attgggtgat gtctaggata ttaaaatgtg a                          401

```

```

<210> 146

```

Seq-Listing-P1425.TXT

<211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 319
 <223> /replace="g"

<400> 146
 gctggcttct gagaggggag tacttattca gagaggaata gaacttaata taaacattcc 60
 tccatccaga aaaaaaaagt taactgacac tgggggcaaa agcctgggtct ccagctgtct 120
 ataaaactgg ctgttccaat atctgaactc acagaatccc tcccccaact gggagttaat 180
 ttggagtttg agttgaaaac atgttcaaag ttttgccta aatcagtcag ccaacaggta 240
 tttctgtgcc tgtccttcga gccctgtgct gtacacttaa attttatttc ttaggagcca 300
 aaaaaaaaaa aaaaaaaaaa tgaaatctat agaactgatt cataggtcgc aacaaaatgc 360
 acaggttggg gctcagtttc ttcctggctc cttatctttc t 401

<210> 147
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 154
 <223> /replace="t"

<400> 147
 gctctaactc aacctttcat ttgtttcaag agggaggtat cagaaccaca acaaatggaa 60
 tgaaacctac cactaccacc tgcctggcac aaagaaataa ttacaattc acggggaatt 120
 tcctgtgttt cattttgtct gaagaactgt aaccggactt gaatgaacta agtgtctaata 180
 tgttgcatta tttttcttgt agagatttta gtgttttatt actttctcca gtttacttca 240
 atagtgaatt aggttccctc taccatctga aatgttacag ttcgataaaa taggtaaatt 300
 aataaagtct aaagtgcctc caagctgagc agagaccttt ctgtgcgctg tgcttttatt 360
 gctcttccca gctgatattt ataactgggc catatgtggg t 401

<210> 148
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 148
 ggataaagtc ataggaatat ttttaaagcc tttcatggta aacagaagaa aaagaatact 60
 aaaagtacta taattattga gcattgtgag gaagaagcaa gcagaaagaa ggcattgaga 120
 tacctctcat agtgaaaaac caatggattt ttgtctacct ttgttaaaat tcaagaattt 180
 aatgagtcac ttgttaaaact actggaagct tgagattggc catgatggga atatttacat 240
 cccagaaagt gaaaaaacia acagattaga aagcaaccat gttaactaaa aacagtattg 300
 aaaagtgagg caggggcagg gaggagttag cagaaggaga ctgcctgttc ttttgttgct 360

Seq-Listing-P1425.TXT

gagtatgtat ttttctatac atacgtaagt atttattacg t 401

<210> 149
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 121
 <223> /replace="t"

<400> 149
 gataaacctt tatagttaga aagagtctaa atgttggtgt ctgtaagcac aataagtaaa 60
 tgagtttggt ttttccttcc aaaataactg aacgttcact ttaaataataa tgtagccag 120
 ctttgaatcc agaataattta catcttgag actgtgtctt gcagcctctg aatcaactga 180
 ctgggagcat ccgtctctgc atgcagggt gctgaaagggt gggagcagag ataaaagaca 240
 ggagatggga agaaacaaag ggagccaaga gatttcataa aatgctgcaa gagacattct 300
 tttgatctat ttggactcct ccaaggcggg atccagagaa agaagagtgg cagggttgag 360
 accacacccc tagattagct ctcctttgaa ctgggatggt g 401

<210> 150
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 150
 ttcaaaaaat gtctctgcat gtcttttgct cgcttttttaa tgggggttatt tgctttcttt 60
 tttttttttt tgagtgtttg agttccttgt aaattctgca tattagtccc ctgtcagatg 120
 gatagtttgc aaatattttt tccactctg caagctgttt gttcactctg ttgattgttt 180
 cttttgctgt gaagcttctt cgtttaatta agtcccatct gtctactttt gttttgttgc 240
 atttgtttct gaggtattag tcatgaatcc tttgcctaga ccaatgtcca gaaatgattt 300
 ccctaggttt ctttctagta tttttatagt ttcagggtctt acatttaagt ctttaattca 360
 tcttgagtta gtttttgcct atggtgagag acagaggtct g 401

<210> 151
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 218
 <223> /replace="t"

<220>
 <221> variation
 <222> 344
 <223> /replace="g"

<400> 151
 attgatagtc tagaaacttg ttagagagaa aggaatttaa tcaaaggtag aagtaattta 60

Seq-Listing-P1425.TXT

```

tagggtaagt ccgacatata catactttct ctaagccttg gcttgattgg ttttcatttt 120
tgggatgtgt atttgacatt tgaaacaatt ttgggtcaata atgctttcat gcgaggctga 180
gagttctttg acctatacat agaaaatgag ggagagccaa gagaaatttg gtgctggagg 240
tgactgctga actttcagga tcattaaaat atactgctaa ctgcatgaaa taagcacatt 300
tgactcaagt ttctccttgg ggatgggtatt ggtcagtttc tcaagagaga agccctcttc 360
ctctccctta ccaaagactc tgtctccagt taaacaggga g 401

```

```

<210> 152
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 152
aatttcaaat gggctcttgta ttcttaatat aaaccttatt tggatataac atatgattct 60
tttaatatat attgttgatt ttgacttgat agtattatac taagggtttt ggggtgcatat 120
tcactaaaga gtagcaccta ctattttgtt ttctggaatt gtctttccct gatttggata 180
ttcttgtttt ttttaactag cgaaatgaat tagtaatttt ttgtcttttt ctgttccctt 240
gagcaattcc tgtattagag ggtctgtttc tttaatgttc agtagtatct catgcctaaa 300
tctgtgtggg cctagtgtcc ttttttccct ctctttttta ttgaaggact aaagctttga 360
atgcttttgc agtttcttcc aaagtttatc atctactcag c 401

```

```

<210> 153
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 153
attacttaaa tttattaata catttttaat atcagatggg aagttacagg atggagctgt 60
gacacccttg tcatgaacaa gcctacagtt gtagacttat gctcaciaag ggtgctcagc 120
tccctattaa tgaattgatt gatgaatcaa ttaaattgat ttgtgattat tggctatcac 180
tgacacttgc agaaggtagc gctctcttgc gctgatttca tgtaaatctc atctaacttt 240
aaggagctca tttcatgaca catggaattt aaaggccagt actctacaat tcatggacac 300
tcttctaact caaagtagct attaaggaaa ccaatcttaa agtcaggatg acagggacct 360
taaagtagca attccatttc cagccttata gactcaacca a 401

```

```

<210> 154
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 257
<223> /replace="t"

```

```

<400> 154
ccatacaata gatttcctac ttttaactacc taaatttggg tcaaaaaccaa ccactattag 60

```

Seq-Listing-P1425.TXT

```

gggagttttg tgaacttact tcatgtgcca ttgaatttct aataggtgat atctaatttt 120
aaattgtagt ttagagaaaa aatgttgcta ttctattgct gaaacataat tgatatataa 180
ggagagtttg gctttgaata catttctttc tctgtatata tttatttttag atttcatgag 240
cgagtatttg attcttaaaa tattgaggac attgcaaaac atgattttac tggatttttc 300
agaatcgtaa agaagaataa ttcttttata gtttagtaac tatctaaaat aatttagaca 360
cttttgacct tattttcttg atgtttcttt gagatgagga g 401

```

```

<210> 155
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 227
<223> /replace="t"

```

```

<400> 155
tgtcctttct acctttgcct ggagacttag cagtgcctcc caccacagca gacagaaggt 60
acatctcact ctaccctctg acatcagctc cctcatggaa cttcctttgg ccaatgagcc 120
gagagcagag gcgtgagttg tgtctagcca gagggttcaa atgtgcttgc gtgatttggc 180
ttggcttttt gagcttcagc attctccatg ggaaaaatcat gccctgggta ggcattgctc 240
cttcaacctg tgtcctggaa tgaagacaca tggaacagtc tggaacctaa aacaaagcct 300
ggagttcagc tgagatcagc taagggtgtg ctgggacctg tgcatatgga ataaatgttt 360
gctcttatag gtaaatgcga tgtggaagtt gttcattact c 401

```

```

<210> 156
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 4
<223> /replace="g"

```

```

<220>
<221> variation
<222> 78
<223> /replace="t"

```

```

<400> 156
aacattcgag gccagtttgc caaaaatctt ggtgctaact gtatgtccag gttacagatc 60
cacacgcaaa tgcagacca acaacactga ggctcatctt ttgggtttct ccccatcttc 120
ttcaccatga ctcaattctc caagaaaaat gttgttgcta ctttcaggaa cagtccagga 180
tgagagctta aggtagagtc cggacatgtg catggaagca cagccatgat tctatctaata 240
tggctcaaac aaaagtcttg gacagtattt tggctttttt tttttttttt ttttgagaca 300
tgatcttact ctgtcaccta gcctggagtt cagtgggtgcg atcataggtc actgcagcct 360

```

Seq-Listing-P1425.TXT

tgatctccca ggctaaagca atcctccac ttcagccca t 401

<210> 157
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 157
 tgcctagcct atattttttg tgattggttt tctgagtcta taaagaaaaa aggatgttct 60
 tcagctatatt ggggactttt ggctccaccc caggcccata agtgaatgca acaacaagggt 120
 ttaatgactg ttggacactg tgtttatcga gagacattct gcagggaagc agaaacaaca 180
 taattgccta taaaaacatc ctttaaaaag ttagcagtct aatccataaa aatgaatttt 240
 ggcagggtgca aatgtagcca gggccaaggc agggcgtgcg gtggatgggg gcgggaaatc 300
 cattcaggcg cggaggcttg cctgttggtt tccctggagt gcgccgtcct ctctcttggt 360
 cctgcttctt ttttactctc ctttctcctc agcagccatc c 401

<210> 158
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 68
 <223> /replace="t"

<400> 158
 gcacaaccag gatttgaact aaagtttacc ttcattctaaa tacgcgtttt tctttctctc 60
 tctctctctt ttttttttta cccctatcgc atcatagcca catctgtggc cacacaagaa 120
 atactttccc aacactcagt agctaattat tcataagggt ttaggggtgac ggtgggcat 180
 gtgcagagat gctttgaaag acttccagga aaatcatgct ttatggctta gaatttgggg 240
 acatgactgt acctgaattg agatggacag gaaatcattt ctccctcctt cctgcttcag 300
 cacacccctc ttccactca agagattctg gagacgttc aaggccatct ccttgccaga 360
 tgccctctggt ttagaaaagt catttcaagt gcccgaagga g 401

<210> 159
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 54
 <223> /replace="g"

<220>
 <221> variation
 <222> 55
 <223> /replace="t"

<220>
 <221> variation
 <222> 175

Seq-Listing-P1425.TXT

<223> /replace="t"

<400> 159
gagggtccccg agggctctgg ggaggcggaa gaggggacgc ggtgtgttga gatacgggga 60
gaagttcaga gcagcatggg catgcagggtg cctgcagagg ggcccatctg ggctgcaccc 120
cagcaggaca gggccatggc ttggtgtggg ttcggctggc tgcacagctt cttgcaaagt 180
ttgtccccag ggtccttggg agtagagggtc tttcgggaagg caccatctcc agagcgtgtt 240
tctgagtaac tctgaggatg ggttccgggt tatcactgtg tgttggaaac agcagcgccc 300
aggctgccgg agggaggctgg tctccctggc aggtcctggc tgtgtctaga gttttgtggg 360
tcctggagat aaggctccgg tttgaggccc ctggggctgg c 401

<210> 160
<211> 401
<212> DNA
<213> homo sapiens

<400> 160
gaagtgtctg tgtacacagc tcctgacagt tcctgcctgc ctggctccta gcccagtgtc 60
gttagaaatc tttcccaaac agctctacct ttttgaaagt ccagaccctt gacatccatc 120
tctccctact gctcagaatt gtctgtatct atcttttacc aatgggggaa aggaaagaaa 180
aggcagataa agagtgtctg accacagaac cttgggggat taaaaagaag caggctgtgc 240
tgagagccta ggatcagaaa gaatctcact gcaccctcac cttctttaac ccaggcatag 300
acttccctcc atccattcca atacctggag tgtctcattg gtgtagatga aaacacggca 360
gtcagggtata agcagggtcct ggagctctga ctagctcatt t 401

<210> 161
<211> 401
<212> DNA
<213> homo sapiens

<400> 161
caaatacatt tgttttatga gtgtcaaagg ctctaataata ttaatattac taatatatta 60
gtacaaaata ctaatatata actaatatac tacaatgtat tatgtctatt atatataata 120
catcagtata ttagttatat taatatatta ctaatgcatt aataaagaaa aaagatgtta 180
aactagacag gatccatcgt gtccttgtgg cattttgatg gaggccttca cctcaacagt 240
gagttaagcc tagagtatga ggatgagttc tgtgcattag ccactttaaa gtttgtttgt 300
cgttactcag tatacaacag agaaaacctc aaaatccctc ttcacttctc ttccaactct 360
gcttttccca gtgtgagtag aatcaaacca tatgtactgt t 401

<210> 162
<211> 401
<212> DNA
<213> homo sapiens

<400> 162
catgtaagaa ggattttatt gttcttctat gcttagcatt ccttctgcta tgtggaatag 60

Seq-Listing-P1425.TXT

```

tcctggagta acttgacaca cagaaagtac catattttta acagaagcaa ttcattgtag 120
tggtttctgc gagcaataga aacttgcaga acgtacaagg aattcaaaca tctcaacaga 180
aaaaagccca ccaagtttcc acaaaaaact acaattagaa ctgccatatg atctggcaat 240
cccatttctg ggcatttatc caaagaaaag gaaatcagta tatcaaagag acacctccaa 300
accccatggt cattgcagca ttattcaca tagctaagat atgaaatcaa cctagggtgtc 360
caacaacaaa tgaatggata aagaaaatgt ggtatatata c 401

```

```

<210> 163
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 136
<223> /replace="g"

```

```

<220>
<221> variation
<222> 276
<223> /replace="t"

```

```

<400> 163
actatgcatt atatgtatcg aaacatcact atgtacccca tgaatatgtc aattaaaaaa 60
atagttttcac caagaccac taaatcaaca gaattttgtg gcaacattat gcagacccca 120
ctgttgagag taaacactat ttgatatgat atcaagttcc atcagtttgc atcagatcat 180
cagatgagag ggccataagc gtcttctgtt ctcataatta tgcagattta ttgttttgaa 240
acaaaatcaa ctctctctta aaataagcaa ggacactggg gcaaccaact attctcagag 300
aaggagtgtt ttttaattttt ttcaggattc ttaggaaaat caaatatcaa ataacatata 360
ggaatgtaga gttcaatgac aaaaaggaaa tctcttgact g 401

```

```

<210> 164
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 61
<223> /replace="g"

```

```

<220>
<221> variation
<222> 126
<223> /replace="t"

```

```

<400> 164
cccactaaat caacagaatt ttgtggcaac attatgcaga cccactgtt gagagtaaac 60
actattttgat atgatatcaa gttccatcag tttgcatcag atcatcagat gagagggcca 120
taagcgtctt ctgttctcat aattatgcag atttattgtt ttgaaacaaa atcaacttct 180
ctctaaaata agcaaggaca ctggggcaac caactattct cagagaagga gtgtttttta 240

```

Seq-Listing-P1425.TXT

tttttttcag gattccttagg aaaatcaaat atcaaataac atacaggaat gtagagttca 300
 atgacaaaaa ggaaatctct tgactgtatg aatagtttca tgaagtcaca gcattgggtt 360
 aatagcaaaa attttatttg gaaagaaact tacatttga t 401

<210> 165
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 165
 tggtacctat tatgattaat attgttttcc ttttttctt gcaaatagtt ttaagtctcc 60
 ttcagtctta ttcatttttt ttttctctaa agagcttccc cagcattcct ccattttctt 120
 gaaactgttt atcatgcttg ttttgtgtca agccgtgggg ctctgtagag catgaaacaa 180
 gaataagatt ctattactta accttcattt aatagtatac atttgccaat taagagcttt 240
 acacaaattt tcttattaag tcttttcaac aacttctgga tatggataat gttaattctt 300
 gtccatgata caattggaga aattgaggct taaagagatg aagtcacttt tcaagtgcta 360
 catagatgct aagtgataaa gaagaaattc aaaccaggga c 401

<210> 166
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 45
 <223> /replace="g"

<400> 166
 cccttcttca ttttaaattt attttatttt tagttttgat taaaagacc acacataaac 60
 ataaaattta ctatctttac cattttttaa tgtacagttc agtagtgta catatagtca 120
 catcttgctg caatgtccct ccagaagatt tctgtcatct tctttggaaa attttaagaa 180
 actattacca aaaagtgtac cgagatatag ttttaaggct gatgtaccaa tgacaccacg 240
 tgaataaatt ctgtacattc acctgtaaag ctctcagct tttgggcttt tttctcctta 300
 ttggctgggt ctaaataaat tttatgaatt cccaataaac ggcttttggg aaatgccagg 360
 tcatcattgt aataaaaagt ggtataaggg gaaaacaact c 401

<210> 167
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 167
 tgtatgacat cactgacagg gactaattta aaagatttaa ttattcccca attcacacat 60
 gtcttgattt atttttgata aagagtagca aatgggtacc ctaggattct atacaaataa 120
 gccagtgtaa tttgatggaa taaacactga tttggatgtt aagagatttt cagctaacc 180
 tggctcttct gataactggc gttgttactt ggggaagtca gttaatctct cgtttgtaga 240

Seq-Listing-P1425.TXT

atgatggggc taaactaact ggtctcttag aaattgtttc ttcaagacct aaccttctgt 300
 ggtttctcctt aatgcctgga tgcaatgacc ttactactga tggaaagatt atcttgggaa 360
 atgttggcca aaactaaacc ttctccccac acatctgttc t 401

<210> 168
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 168
 acagaaatta gaagctaagc attgcaattt aaagaattat aggaacttag gaatcataac 60
 aattttcttt aaatatcagg ttatttccct taaataagtt atgtgcaagc acttcgtaaa 120
 ttctaaggct ttaatcaaaa ttttgatttt attactatta ttattgggct atgtgaaaaa 180
 gagaagtgaa atactaagcc catgaaaaaa taagatttta ttaacataa ttaagacac 240
 agagcacttg ttcagactca agtctgttac attcttacat agagtaactc acattattgt 300
 tggaaccaga gctacagttc gtatctttct tgagccttcc tcagggtcca gagttctgag 360
 agaatttcat tatcaccatc tccaagaaa aacaagcttc a 401

<210> 169
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 169
 tattttatgt atttcccatt gttctgctat tacaaatagt tgttcagtaa gcattcttgt 60
 acatttatct ttgtgcaatt gaagaccaat atttctctca cttatgtagt gccacccttg 120
 ctagtaggaa tgttccgta aatgcaaaac ctgcagaact tggactcttc aacatgtttc 180
 tactttgcca aaactgtcta cgcctccctg tgcttgcttg ctgctccttg gctcttcttt 240
 gtctttaatg ttgcccttaa ctctaataaa agcctctgtc ttagtttagg tttccccaga 300
 aacacattta agacaaggat ttgaatgcaa gtggcttatt caagaggtgg cctcaagatg 360
 cacaggtagg ggagtggagg gtggggcgga acaggggaagg c 401

<210> 170
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 56
 <223> /replace="c"

<220>
 <221> variation
 <222> 77
 <223> /replace="t"

<220>
 <221> variation
 <222> 133
 <223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 246
 <223> /replace="g"

<220>
 <221> variation
 <222> 350
 <223> /replace="t"

<400> 170
 actaataacc tggctctctca ctcatcctga ctgggctgcc ttcccttccc tgtctgtctt 60
 cccctttctt ctccctctcc tcctgggatc acctcccata caaactcctc accctcattt 120
 ccttgtccca aggtctactt ttcaggggaac ccaggatact ttctctctgg tcctaagaaa 180
 acccaggcaa accaagtttc ctgctctcat acaatttaca gcatgttggg ttgaacaggc 240
 aacttaacaa acattaaaaa cgaagtgtaa cgagtgtga ggtcaggag catagactgg 300
 cggaaggcac agagccacag gggaccctaa gctagcccag gagaggtccc agaagctgag 360
 ctgggagtga ctggggctcc ctgccttttc ttcccttct t 401

<210> 171
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 171
 ggtaaatagc ctttcagggt agctgaaaac tacttaccaa tcagcagctg gcagaaatgt 60
 gtaccaagag ctctcatctg gaagtgggca gctgactcat gttggagttg tcatccctac 120
 tccagcagcc ttctgggtga aaagtcttc aaagcacatg catgtgaggc cagaccattt 180
 ctcttctgtt ttctatgctc ctacacaaaa aagaatgagt catggagctc tctaattcag 240
 gatccagtag agcatcagac agaatgcagg ctgttgtttg aacatccgtc tccagataga 300
 ctgcagtgtc atttaaacaa agatgtatgc atttgaatat ggtgccatac aattcttgtg 360
 ccgaactggc atatcttctg agggaagatt ttatagaaat a 401

<210> 172
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 27
 <223> /replace="g"

<400> 172
 ggaaacaaaa aggattataa gaaagtaata taagcaactg tacaccaaca aattggataa 60
 ctgaaatgaa atggacaatt tctagaaata cacagtgtat caaaactgaa caacaaagaa 120
 aataaaaaat ttgaatagac ctataactag taagaaaatc tcctgatata gagaagccct 180
 gggctccatg gctttactgg ctaattctac caaacattaa aatacaaatt aatgccaatc 240
 atcccaaaaa ttttccaaaa aattgaagag gaatgaatgc ttcttaactt attctataaa 300

Seq-Listing-P1425.TXT

gccattacct taataactaaa gccagacaaa gacattacaa aaaagaccaa tattccttat 360
 aaacattgat gtgaaaactc tcaagaaaat actagcaaat t 401

<210> 173
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 173
 aaagaaagat atttctagca catatgagtt tatggatgga gactcatgcc tgccacactg 60
 tgaaaacatt cttcccttca aaatccctat cagtgtgaatt tgaagtgaat attctagtac 120
 cacatgcttt tggactctaa ggaagagata taatgtacga aaatgtggta tctgaatgca 180
 gcaaattgaa aaataccagt ccagatactt tggggccatg cagagagttt cccagtcagg 240
 tgtaagtgtg ggtggtggtg gtttgaatac tgaagggatg gacaggtggg ggtgacaact 300
 aagagctgcc acctggggag aatcctaggc agagtctggg cctggacaac ccaaccagta 360
 gtgaccgtgg gccggacgag cctctgggct ctgcagctcc g 401

<210> 174
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 4
 <223> /replace="g"

<220>
 <221> variation
 <222> 68
 <223> /replace="t"

<400> 174
 tacactaatt catgcaattg tatattttgg aggtaagtgt aatggcatag gtttgctgta 60
 atggaaccga ttggaaaatg atctcttggg gaaaatttat tgctggatcat aagatttctt 120
 tggtttagaa aaatgctggg tttagtaaaa tctgaggcac taaatgaaag tctgctttaa 180
 taaaaatgtg gatctgagaa ctgtggtttt tagtaagtgg gcatttgatc cattaaaatt 240
 gtattggttt tattctttac gttggctttt cctgaaatcc atcagtttga agcatgaagt 300
 aagcatttgc cagatattgc tccaataatg aaacattgaa agcaaggccc tgaataactg 360
 ttaaaacaag tcctattaat cagctgtgac ttgtcccttt g 401

<210> 175
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 106
 <223> /replace="c"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 294
 <223> /replace="c"

<400> 175
 atccaatcaa ccatcacaga aagaaagcat gaagtccaga tgactggacc aaaagaacac 60
 cctagggttg atggatgctg gatggccaac tggatgggaa aaaagaggggt cttgataaca 120
 ttctaattag ccccaaaccc tctattccca tgagccagtc tcttctcttt aagttgatgc 180
 tagctgccgt tttgtgttat ctgttacaga ctaatacaat ttgcaataat tgaagatgca 240
 atatttattg atatattatt atcaattgaa gtccatagct tacattagga ttcactctta 300
 gttttgtatg ttctgtggat tttgacatat gtaaaatgac ttgtgcccac cattacagta 360
 tcacatagaa tggtttcact gccccaaaat accctctgtt c 401

<210> 176
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 176
 aaatggactt aagccattac ctttggctgt cctagcaggg gagggtttca gactttcatt 60
 tctttcccag cctatggtgt gaggggaaaa gttgtcttgg catggagata cactgtcagt 120
 gcagactcct caaagatgaa tggatgtgca tttaagaaca gatagctgag aacatctctg 180
 aacatcagtt tctgcatata aaaaatagag ccaataaaact cttcctcacc agtttcttga 240
 gaaaattaag tgatataaca tgtgggaaat gcctgcctta ggagacatct agaccaacac 300
 tgttgcaatg atggacgtct tctatgttct gtactgtcca acagaatagc caccagccac 360
 atgtggccac tgaacacttg aaacatgatt aatgctatga a 401

<210> 177
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 280
 <223> /replace="t"

<400> 177
 attaagtgat ataacatgtg ggaaatgcct gccttaggag acatctagac caacactgtt 60
 gcaatgatgg acgtcttcta tgttctgtac tgtccaacag aatagccacc agccacatgt 120
 ggccactgaa cacttgaaac atgattaatg ctatgaagga aattaatttt tacttttcta 180
 tgacttttagt taatttaagt atgagagcca catgtgcctg gtggctacca tgttgatgg 240
 ctcagggtcta gacaatatgt gtaatgttga tcatgatgac gatcatatta gttctgcttc 300
 ctcaagttgg agtcaaagtt ttatgctcag ggaacttgtg cctctaggat gggatcagaa 360
 aacaaaactt ttccccggca agttgtatca cagttaggtt t 401

Seq-Listing-P1425.TXT

<210> 178
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 168
 <223> /replace="t"

<400> 178
 ccatgttggt gcaaatggca ggatttcttt catttgaagg ctaacattcc attggatgta 60
 tatgccacat tttctttatc cattcatctg ttgataggca tttagattat ttccatatct 120
 tgccttttgt gaacaatgct gcaatgaccg tggaagtact ggtattcctt tgagatctga 180
 tcccaatttc atttccactg gatataacc cagaagttag attcctggat tgcaaggtag 240
 ttctagttct ataatggcta caaccaattt acattccac caacactgtg tggtttcctt 300
 ttctccacat catcaccaga atgttttggt ttattttatt tttaaaataa tagccaaacc 360
 atttgatat ggtttaaata ttccaatac tagatcaact a 401

<210> 179
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 390
 <223> /replace="t"

<400> 179
 aacttcaatg aggaatgcaa cagagagaga gaaaaaaga aagatcgggt gattgagtag 60
 acattgaggt ctgaaaaaat gtagaagtca agtcgaacaa ataagcataa acatgtactt 120
 ttaggaagaa gtccatgttg ctggtgccct gtcacattg ctttggcca gccttgaagg 180
 acagctgcag agtggattct ctcatctccc ttcccagagg catcctctgg ccaaataagg 240
 gggcattctc ggccatcaag ctgagcaggc cagtggggg tgggcactga ggggcacaca 300
 ccagcttggtg tcccactcag aggggcggtt ctgaggcatg ctccctacag tctcccagag 360
 tggccccagg agggctaagc ctgagttgcc catgatggca a 401

<210> 180
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 12
 <223> /replace="t"

<220>
 <221> variation
 <222> 320
 <223> /replace="c"

<400> 180

Seq-Listing-P1425.TXT

```

gagtggattc tctcatctcc cttcccagag gcatcctctg gccaaataag ggggcattct      60
cggccatcaa gctgagcagg ccagtgaggg gtggggcactg agggggcacac accagcttgt      120
gtccccactca gagggggcgggt tctgaggcat gctccctaca gtctcccaga gtggccccag      180
gaggggctaag cctcagttgc ccatgatggc aatgctcatt attgcaccct cgtggcttcc      240
ttctcttttcc tgccctcattht cgtactccca agctgtgctc ccctgcatca cttcctaaac      300
taaatccctt catctaagaa cttatcccag ggtctgcttt ggggaagaac aaaagacaaa      360
gcacttatga tatactcaag actaacagaa gcataagctt c                          401

```

```

<210> 181
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 6
<223> /replace="g"

```

```

<220>
<221> variation
<222> 348
<223> /replace="g"

```

```

<400> 181
gttttataaa atttatgatg tgagggttaca atatgccttt ttcttgtgat tcatccttct      60
tgcaagcttc tatgtagcaa gccggcaaaa ggagtgaggaa gggacttctg gggacggtcc      120
tgtcatttcc tgcagtattht tcgtgagtca ttcagcatcg gtctcttccc tactcctatt      180
gtctggctgg agagaagcac cttttcatag gtgagcttht cctacaaaca tgagagatta      240
aaaataagat cttcaaataa agaaataatt tgacatttat tcattgaaaa tcatcctct      300
tcaactcatc ttccatttac agctctacc ctttcttht tgagtgaggaa aaatgaggcc      360
cagaaaaata aatggatttg tccaagataa ccctgattgt t                          401

```

```

<210> 182
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 213
<223> /replace="g"

```

```

<400> 182
tttaaggatg ggatacatct caacttgctt attcattcac ctggttggtgg gcatgtgagt      60
tgtttaagtt ttgggttatt acaaataaag ctgcttgaat gtttatgtat atgactttgt      120
gtgtatttat gctttcattht tttctttggt aaaaaccaag aatggaatag ctgcatcata      180
tggtgattgt gttttttttt aaactttata agaaactgac acattgttht ccaaaggggc      240
tgtatcattt tacattctca ccagcagtga atgagattct agttcttcca tctctcacc      300
aatacttgct gtggtcagtc tttttagcta ttctaacaga tatctcatta tagttttagt      360

```

Seq-Listing-P1425.TXT

ttgcttattc ttaatgacta atgatgtcaa gcatctattc a 401

<210> 183
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 63
 <223> /replace="c"

<220>
 <221> variation
 <222> 328
 <223> /replace="c"

<220>
 <221> variation
 <222> 359
 <223> /replace="g"

<400> 183
 gttggtgaat ttttgtctta gcatctgctt ccggcagaat ccaaacaaag acatgagaat 60
 taaatttttg gtttcattct tgttttattt tcttaacata catgcttata tgtaaacc aa 120
 ttttgaattt tatgtatcaa caatttaagt tctactgctt taagattata tggacattaa 180
 atgtacagaa aaatagaaac caacaaaaga taaataaatt aaatacattt ttaaaaaagt 240
 ctgcgcagtt gtggtggctt aatattgccg tgagctaata ccttgagggc tactctctct 300
 ggagtgggaa tggagctctc agtaattaga cagttttggc cagtggcttg tcacacggat 360
 tgtgcattca cctggcttta ggaggaagag gaggcatggc a 401

<210> 184
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 172
 <223> /replace="g"

<400> 184
 taatgtcctt aagatttaag cctcagttct ttgcgctttc tcttacttgc agcttaaagc 60
 attcctaact gatgtttaag aagtttggaa aagaagacta gaagagaaaa acttactcat 120
 tgtccttctt cttttttttg ccctataccc aaaataaaaa ttttcctttc tatgtacaaa 180
 tttgcacata gctatgacca aatggtgtat gtacaactgt ctttgttggt tttaaatcta 240
 tcttttatct taaaattaaa tcatgtgttc attgcagaaa aactgaagaa tatagaaaat 300
 ggtaaggggag aaaataaaat cactcagata cctaccaaga gagaacaaat gttaacatac 360
 taaggtttct ttttgtaatt tttcataaat ttgatgtcct t 401

<210> 185
 <211> 401

Seq-Listing-P1425.TXT

<212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 142
 <223> /replace="t"

<220>
 <221> variation
 <222> 252
 <223> /replace="t"

<220>
 <221> variation
 <222> 297
 <223> /replace="t"

<220>
 <221> variation
 <222> 308
 <223> /replace="t"

<220>
 <221> variation
 <222> 329
 <223> /replace="t"

<220>
 <221> variation
 <222> 383
 <223> /replace="g"

<400> 185
 ccaccagttt ttcctgagga caaggagcct cttaaactctg aactatggtg aagtgtttta 60
 gtttgagatc ccgggaaata gactctgaga caaagaactg tgagtaggag gtttcatgga 120
 gagtgctctc aggatccaca cctgcgaaat aactataata ataataataa taataataat 180
 aataataata atagtgaagg cctggactgg gtagaggaag aaactgatcc aaaacaaacg 240
 tgcaatgagg cctcagccaa ttcctggggg gcagatctgg ctgtgtacag cagttcctga 300
 ataatgtcgg ttcattcgat gttctttcct tataacgttg atgagaaaac aattgatttg 360
 cacctggggc caccatctgt gtatatattgc acaacctccc c 401

<210> 186
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 48
 <223> /replace="t"

<220>
 <221> variation
 <222> 93
 <223> /replace="t"

<220>
 <221> variation
 <222> 104
 <223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 125
 <223> /replace="t"

<220>
 <221> variation
 <222> 179
 <223> /replace="g"

<220>
 <221> variation
 <222> 318
 <223> /replace="g"

<220>
 <221> variation
 <222> 338
 <223> /replace="t"

<220>
 <221> variation
 <222> 362
 <223> /replace="g"

<400> 186
 gactgggtag aggaagaaac tgatccaaaa caaacgtgca atgaggcctc agccaattcc 60
 tggggggcag atctggctgt gtacagcagt tcctgaataa tgcggttca ttcgatgttc 120
 tttccttata acgttgatga gaaaacaatt gatttgcacc tggggccacc atctgtgtat 180
 atttgcacaa cctccccata gctgcatggg ttttctctga gtactctagt ttgctctctc 240
 attccaaagt catgcacatt aggttaattg gcatgtctac atggactcag tgtgagtga 300
 tgtgagcatg ggtgtgaatg tgctctgcca tgagagactg tcctgttcag ggctgggtcc 360
 cacctcactc cgtgagctgc tgggatgggc tctggccacc c 401

<210> 187
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 357
 <223> /replace="c"

<400> 187
 tagcctatgg aaaaattggt tttgttatat gtcattttgc ttaaagctgc agtttccagg 60
 actctatcaa caacattaag tgaggacttt gtgtgatttg cggggccaag tgcaaaatga 120
 aattgtaggg taccttggtc aaaatgcaag aaaaaagtgt cattagaggt acagaaacac 180
 actttttttt tctatctgtg gtgtctcaaa ttgttatggt ggtgttattt tcttctaaat 240
 gtctttttta ggaaagaaaa ataaaaattt aaattattag caacgatttt tgccattcat 300
 ctttatatta tgcattgcta attttaaaca caagtgtgtt taattaactt gtatggagac 360
 tcacaaaaat atacattttg tattttatta ctcatgcgtg t 401

Seq-Listing-P1425.TXT

<210> 188
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 188
 cagcctcccg aataactggg attacaggca tgcgccacca tgcccggcta atttagtatt 60
 ttttagtagac atgggggttt gccatgttgg tcaggctggg cttgaactcc tgacctcagg 120
 tgatccgcct gccttagcct cccaaagtgc tgggattaca ggcgtgagtc accatgcctg 180
 gccgatcata acagtcttaa ctgcaatttg ttaaataata atttaaactg aaatgatatt 240
 tacctgtaga gaccccagga tccacagtta tatctgtttc ccaacatcag agactttctt 300
 ttatggggct tgcaggaatt ctaccaatat ttactgagta cttctgatga atcagacatt 360
 ggtctaagaa ctgtaagaga ctgaaagatc aataagaaaa a 401

<210> 189
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 189
 ttttgagaca aagtcttgct ctgtcactta ggctggagtg caatggcgag atctccgctc 60
 ggtgcaacct ctgcctcctg ggttcaagca attctcctgc ctcagcctcc ctagtagctg 120
 ggattacagg tgcccaccac cactcctagc taattttttg tatttttagta gagatggggg 180
 ttcacatgt tggccttgaa cgctgatct caagtgatcg gcccccttg gcctcccaaa 240
 gtgctgggat tacagacatg agccaccatg cctggcctgc atgactgact cttattgttt 300
 gtgactataa acattacttc cccagaaact tgcttcctaa cctacaactt aaaatagtgt 360
 ttggtcacta tttgaagagt agacaatcac actttaaata g 401

<210> 190
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 392
 <223> /replace="t"

<400> 190
 gggattacag acatgagcca ccatgcctgg cctgcatgac tgactcttat tgtttgtgac 60
 tataaacatt acttccccag aaacttgctt cctaacctac aacttaaaat agtgtttggg 120
 cactatttga agagtagaca atcacacttt aaatagataa tctaagtcta tgccctattg 180
 tattcccctc ataacagtta ctagtgtctt gatattttat ttctatttgt ttattttttt 240
 tgtttgtttc ccatctgagg agaataaaaag tctggtgaaa gcagagacca tatttatttt 300
 attcatcatt ctgagaattg gatgggacaa tcagagctca gtaaatattt gtaatgaatc 360
 tgtaaacc aa ggacaacggg aggatccctc tcacaggact t 401

Seq-Listing-P1425.TXT

<210> 191
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 10
 <223> /replace="t"

<400> 191
 taacagttac tagtgtcttg atatatttatt tctatttgggt tattttttttt gtttgtttcc 60
 catctgagga gaataaaaagt ctggtgaaaag cagagaccat atttattttta ttcattcattc 120
 tgagaattgg atgggacaat cagagctcag taaatatttg taatgaatct gtaaaccaag 180
 gacaacggta ggatccctct cacaggactt tatgagtgtt aaccaagata atgcatgtaa 240
 acaccttcgt acagtgcctg gaacacagtc aggtctcagt ggatgccaaa tcattagggtt 300
 caggtaataa aattgtatat ggagctccat tcttgccctc aagtgccctca aaggccagag 360
 tgaagaagga gatggctcac aaatgaatat gtcatttact a 401

<210> 192
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 192
 gaataattgg tgtgtctgga ctcagtaaca ccagtgtcag catatgccac tctggtgccc 60
 aaggacagtt cattgatgac accattgggtg cttgaggact ggcctatgtg gcatcccagt 120
 tccccacaaa acttcaccac aacctccact aacaactgca ccctaagctg ccaagaaatt 180
 atagacactg ctgatgctgt gtccagctga agaagccaca cacaaactac actactgcac 240
 atgtccagaa tcaaagccaa gatgccgtac acaaccaacg ttatagctac atctccagga 300
 aaatgttttc ctttacaaaa gcaactggaa aaaattggaa gaagtgacca ttacaccagg 360
 tgcaaagata tcagtgtgaag gatagaggat acatgaaaaa g 401

<210> 193
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 48
 <223> /replace="t"

<400> 193
 agtatagata cacaatgaaa tactattcag ttattttaaaa aaaagaacga aatcaagtca 60
 tttgcagcaa caggaatgga actagagggtc attatgttaa gtgaaataag ctggacatga 120
 aaagacagat accatacatt ccactcatct gtgggagcta aaaatgttga tctcatggag 180
 gtagagagta gaatgatgga caccagatgc tggaaagggg gtgtgagtgg gaggtggtga 240
 tgaagagggg ttggtcaata ggtgaaaaca tgcaattatc tagaaggaat aagttccaat 300

Seq-Listing-P1425.TXT

gttcaatagc aaagcagggg gactatgggt atcgacaatg tggtatatac ttcaaagtag 360
 ccagaagaca gaacttgaaa tggttctcaac acatagaaat g 401

<210> 194
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 122
 <223> /replace="g"

<220>
 <221> variation
 <222> 308
 <223> /replace="t"

<400> 194
 ttctattttt taagagtcca gattttttata tcattttgttt ttatatagaaa atgatgctaa 60
 cttggtaaac ttgctccagt cactgttctt caacaggatc ctaaaattaa ttctgatttt 120
 gagagatttt cctctgctaa ggccaagcga atgaattttc aacacaattc tttaagttaa 180
 atttagaaga gaaatgaagg gtgaaatttg catgtcatgt tcaaatgttg taattctgtc 240
 acacctgata tgctattatc atagaaatta taaaaatatt ttaactgtat tatatagatt 300
 gttatgacgc atacaaatta tcacttcttt tacaataata tcaggatcca tgcaggaag 360
 atatatagtt cctggattct tctttcaaat ttttctgtgc t 401

<210> 195
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 15
 <223> /replace="g"

<220>
 <221> variation
 <222> 94
 <223> /replace="t"

<220>
 <221> variation
 <222> 369
 <223> /replace="g"

<400> 195
 taatttcgat tttagagat tttcctctgc taaggccaag cgaatgaatt ttcaacacaa 60
 ttctttaagt gaaatttaga agagaaatga agggtgaaat ttgcatgtca tgttcaaag 120
 ttgtaattct gtcacacctg atatgctatt atcatagaaa ttataaaaat attttaactg 180
 tattatatag attgttatga cgcatacaaa ttatcacttc ttttacaata atatcaggat 240
 ccatgcaggg aagatatata gttcctggat tcttctttca aatttttctg tgctaggata 300
 ttatcaagaa aacacaaaat atcatgtctt gtttaattta tttaaacttc tcttcacaca 360

Seq-Listing-P1425.TXT

gcactataat atccataaaa tactctctgc atttattttg g 401

<210> 196
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 196
 atgtttttgga tccatttttta ctcccacatt tggcaaataa tttattcatg aacaatgcaa 60
 atgaaaattt tttctcagtt gagctgttgt gaaattatta cacaaaacat tttgaagggt 120
 atcaattgta atgtgagagc caaaaccacg tgtgtgcagg cccatctttc tggttgggga 180
 ttatactatt tgatataaat cacctcaaga aatagccgta gatgagagaa ataaacattt 240
 taattgttct tataatgaat gataagtga gggaaactata acctcaattg caaatgttaa 300
 catttacaag atgacctgtt tataaatgta gctctgcctt atacatgtgc tcacatccat 360
 tttgaagtat ccaaccagag cgctgataga ttagtagttt t 401

<210> 197
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 197
 taaagaattt gcaaacaagg gaccaatcat ggtagtgagt aacttctttg tctcttgctc 60
 cttttgtaca aaatatctga tttttctcct gcacttgctc gtatctgact cactggttgt 120
 cttcttcttt agtttaaggc ctctggaagc ccagagatag gaggcaggga cgagtggagg 180
 gcagttttct ctcgactctt cctgcagtta tttaacttct gtttctaatt tataaggctt 240
 tcttggcata tgtaagccta tgcagtcaaa ctgagttgtg gtccaggaga ggtcatggac 300
 cagtgtcagt catgtgccac atcacagagt gacgtgagat tcggagatga gaaaaatgta 360
 aaaagaccct actttttttt cttggcctat cccaataaaa t 401

<210> 198
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 198
 aaccaggacc aactgtaac actgccacct ctgcaacata catattagtg caaattgggg 60
 taaaggggtg ggctgataga atgtagagtg taatttagga accagcctat ggtgagatct 120
 tgcaactgct ggcaaagtcc gagccactat ctttgagca atccattcac aatggaacca 180
 gaaaaacaat gtctatttag ccagaaaaaa tttgaatgga caagagtgat gtctctttac 240
 caatacaaga gagataagat tactaggaat agaagagtta catggtttct ctgactgcct 300
 tcacaaagtt cagggtggct ggaggtctct gaagaaaagc ctggacatca gtgatgaatc 360
 aatctctcaa agcctcctgt agcaaacatt gccaaaggcc t 401

<210> 199

Seq-Listing-P1425.TXT

<211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 307
 <223> /replace="t"

<220>
 <221> variation
 <222> 308
 <223> /replace="t"

<400> 199
 tttttttacc aaagatcgaa actctcaaaa cattttcaga ggcttcataa aatcggttatt 60
 tgtgttggaa ttttatatac caccctaaagc tggatgaaat caaagagcca atggctaggc 120
 ttggagggtca ttttaaaaac tgcatttttt caccattata atattttattg caatgggcta 180
 ggccctacgc atcagattgg cgatattatt aaggcatcag aaggccaaga aaatctgaaa 240
 ataaaatggg ttcccaggta aagccatggg aagggtaggc aaaactggca tcaggccaac 300
 cgtttcaaac catgcatcaa acttttgagg tcaggcaaaa ttgaaaacac atttggagaa 360
 gttaattcac cttaattttg aaacccatgt gtatttcaag g 401

<210> 200
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 200
 ctaagttatc tagtttacca gcctggagtt atctgtagta tgtgatagta tagtatagca 60
 tacattttcc cccttttagt atctacatgg tttgtaatga tttccctct ttcattcttg 120
 gggtaatctg tcttcctcta ctctcctgac acatactttg ggcagatccc acctctaggt 180
 acagaatgtg attggcaatt cctgtggacc aatctgagca ttgctttcac ttggctgtcc 240
 tgattgcttt gaatggagag agtaaggcgc atcaggcaga taaaagcat tttgctgaga 300
 ttactggcac tatataaacc ctgcactccc agggagcagt agaaatcttg agaatggatc 360
 cattagagtg taaggcagac gttaaagatg gagaaaccaa c 401

<210> 201
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 35
 <223> /replace="t"

<400> 201
 atctccaccc agaaatggag tgctgtagta aggccactc aagataacga tggcaatggg 60
 aagctggagt gacagatggc acacgatggc aaacagccca tacacgttag tgctttctgt 120
 ggaaaataat tttgtatata tataaatatc ttttataatt taggaatttc cacattatta 180

Seq-Listing-P1425.TXT

```

agtcaggata gccagtatag cagagataca ggtgtccaat atccctttca tccttcttcc 240
tttagtaata gtttatctga gtgtatactg agtgtgggtcc cttgtccaaa ggaaccttta 300
aagtgggtggg ggtcacatgc taaacttata gtcagaggta tgtgaatggc gatgggtggat 360
atcacctctc agtcatgctc atatctttcc ttctgtccct t 401

```

```

<210> 202
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 37
<223> /replace="g"

```

```

<220>
<221> variation
<222> 102
<223> /replace="g"

```

```

<220>
<221> variation
<222> 273
<223> /replace="c"

```

```

<400> 202
aagtaaacag aaaatgaata agctgtggac tttgaaagat agtttttgag ttagaaatct 60
gaaggggggag aaaaggccac agaaacaggg taaacagtta aagcaaacat ttagaccaa 120
aatagccagt agacagcagc tgagaatgga cctcactgct ggtaaagagg cccaagtgga 180
ttaaattgat caaaacagtg cttgggagat agcaaggaat tttatttttc attatttctc 240
ttcaaaaagg catgatggaa gattagactt ctgtaagaac aaacgtttga aacttttcta 300
ttgctactgt ttctgtgctt tgcatttgat gttggttatg aaacgtgttt ttctcagtat 360
agatatatat gtatatTTTT atacatacac atacatatat a 401

```

```

<210> 203
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 40
<223> /replace="g"

```

```

<220>
<221> variation
<222> 110
<223> /replace="t"

```

```

<400> 203
agtttagtat gttattttaga ctaatatTTT ataaatcata ttctggaatt aagctgagta 60
aggccaggaa gaaagagggg tgaggatgga tgtaatgtag gaaccatgcc taggaagcga 120
ggaaaagcat cataaaagga cagcaacaat gtagaggaga gaagttaagc agtcagttag 180
aggaaggcct ctgaaccac ccagggtactt agctgtagat ggacatcagt taattcgatg 240

```

Seq-Listing-P1425.TXT

```

accaccacc ccattctacc aataaaaacc aaactctttg ggaactggga ccagtactga    300
actagtgggt caaaataaag taaaaaagaa gccacttca agaaatactc ctctaaataa    360
cttcagagaa aaggaaattht tgagaaacaa gcaatcacac a                        401

```

```

<210> 204
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 55
<223> /replace="g"

```

```

<220>
<221> variation
<222> 215
<223> /replace="t"

```

```

<220>
<221> variation
<222> 224
<223> /replace="g"

```

```

<220>
<221> variation
<222> 285
<223> /replace="t"

```

```

<400> 204
ggctatgata accaaaacaa catagtactg gtacaagaac agacacataa accaatgtaa    60
cagactagag aactctagaa acaagaccac ttgcctacaa ccattctgatc ttcaataaac    120
ctgacaaaaa caagcaatgg ggaaaggatt tcctatttaa taaatgttgt tgggagaact    180
ggctggccac atgaagacaa atgaaactgg actccttcct tacaccatgt acaaaagtta    240
acccaagatg gattaaagac ttaaatgtaa aacaccgaac tataaaaaaa aaaaaaaccc    300
ctaaaagaaa atctaggcac taccattcag gacacaggca caggcaagga tttcatgatg    360
aaaatgccaa aagcaattgc aacaaaagca aaaattgaca a                        401

```

```

<210> 205
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 167
<223> /replace="t"

```

```

<220>
<221> variation
<222> 190
<223> /replace="g"

```

```

<400> 205
atatgggtag cttcctagaa acatacaacc taccaagact gaatcattaa gaaatagaaa    60
atcttaacag acccataatg agtaagaaga ttgaattagt aattaaaaat ctcccaaaaa    120

```

Seq-Listing-P1425.TXT

```

gaaaatttcc agacattatg acctcatggt tgaattctac tgaacaagta aagagctaaa 180
atcaatccta taaactctta caaaaattga acaagagggg atacttccaa actcatttta 240
ctaggctatt attaccctga taccaaagca agacacaaac actataaaaa aagaaaacta 300
caggccaata accctgatga acatagataa aaaaatcctc aagaaaatga cacaaactaa 360
atttaacagc acaataacaa agatttatga accattatag a 401

```

```

<210> 206
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 71
<223> /replace="c"

```

```

<220>
<221> variation
<222> 148
<223> /replace="g"

```

```

<220>
<221> variation
<222> 230
<223> /replace="c"

```

```

<220>
<221> variation
<222> 396
<223> /replace="t"

```

```

<400> 206
gcagacccca ctgaggggtat aacacacacc aggtgacttc actaaaatcc ccacggtgaa 60
acacatttgc ggcccttttc cctgcccctg gattttgcta aggatctggg gggttctgtg 120
gaagtctgaa ggtcagtgga caggacgagt ttggagatgc gcatttgga actgtacccc 180
tcaagtgaca aggaaatgag cgtggattta agaagataat gaccgttctg tgaagtttta 240
atggaatttt taagcaagaa aacccttacc ctgtgaaaac ttcagtctgc acagaagaat 300
tggtggggaga aggaagactt tgcctaagat cactttatat agcacaaccc agaccgggga 360
gaaggcagag ttatgcccag catatagcct tggcagcata t 401

```

```

<210> 207
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 134
<223> /replace="t"

```

```

<220>
<221> variation
<222> 346
<223> /replace="t"

```

Seq-Listing-P1425.TXT

```

<400> 207
gaaagcagct ttctcccaaa agcagacaga ggatgggata atgacagtga agtgagaatt      60
gaagagttaa tagtgtccat gttatgctct ttaaagcaga cctgttctgt tgtgtatttt      120
ggcacatggg tttcagacat attttagtca atctttgcaa agttgaaagt tgattcagag      180
ccagatgttc agaaatagac agagaaggct attgtaattt ttcacccctc agtttttgta      240
cagaaacttc attgtaaaaa cctttctaga ctgatggctg cctcattgaa aactgggtca      300
aaaatatggc tctgttagaa aatctcttgg attacaaaac aatgcctaaa caaaaacaaa      360
tagaaatgga aaccgcccta cagatgtgag atttgtgcc a                                401

```

```

<210> 208
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 360
<223> /replace="g"

```

```

<220>
<221> variation
<222> 401
<223> /replace="g"

```

```

<400> 208
tatacgcata tctataaata tttctatatg gaagcagtgt ctataggaag ctacacatga      60
gttcatactg cgatcatcaa ctttaatcca ttaccacatg aatcattcta acctgctccc      120
cttgccatct tctaaattct tactccaaca gaaaaaaaca ggctctcaac atctgccatc      180
tacttactta attattcaaa cctagtgcac atgtattgca gtactagaat tgtaaccca      240
taccacatg ggaaaaagtt tatcaactag agtacagtgc ttatgtacaa tgttttttgc      300
aatctgaggg tccactgatt tctaaaatta cttaggtcag catctttttt cttcacccta      360
ttcagtgaag tgtttcatcc gtttgtaata cagttagatt a                                401

```

```

<210> 209
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 209
tgtatttggg actctgagtt acagcagcct ttttcctact ccaccctcta cttatttggg      60
cagttgtttc tcacaggctt tgtacagcga attcacccta gtaagtacag caggctgata      120
cttaatttta ctctgaatgc tggtagatga aaacaacagt gtcattgcct agtaaagga      180
actaattctc agacttagtg ccaaggagcc agaaagggca gtgatttcat gacctagtta      240
aaggcacagt cattactcag ctcccactaa ttttggtcat gtaaaaacac aggcccaatg      300
atactagata ttatactttc tgcagataac cacggcaaca tttccattc atatgctttt      360
ctagaacctt gcctctcacc attaagaaaag gaagcgtgtg g                                401

```

Seq-Listing-P1425.TXT

<210> 210
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 210
 ctattattgt ccccatTTta caaatgtgga cactgaggca cagaaaaaat aagtaatttt 60
 cctggtgtca tgcagacagt aaatgtggaa gctagggagc ccggctgcca ctgcttctca 120
 gcacagcacc gggctgcctt tgggataatt gtcattattcc ctttcttggc ctcaagggct 180
 tccatatcca gtcttcccca cgaacccccca acagcttcaa cacatgtcaa ccacccccag 240
 tttaaagcaa gttgcccaaga ggaatttttt gcgacttttg agtcttttca tttagaata 300
 tacttttatg ctcaaacata aaatctggta ataaggttat tattatatct atatctcagc 360
 ttcattcaat ttgctgtcgt ctctctttat tatatacttg a 401

<210> 211
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 211
 tcttgtttcc agagataaat tagtaggaag gggtgaaaag gagaaatatt tgtgaatcat 60
 acagtagtca cagctatttg ttgatgtcta ggatattaaa atgtgaaagt attacgacta 120
 aaaatcctct gctgtctaatt ctctcacagc ttatatttga tgttccctaa aatcacgggtg 180
 tccaaagaca gaccatgttt ctctagaatt cctgtaatga agatctttgc aagatgccgc 240
 aattttgaat gtcccaaacc acaaagagggt ttcagttctt cctttcaatc cccaaccttg 300
 aactgaagcc tctgcagaaa gctcccagct cactagtgtg gacaggcaac tacttgtgct 360
 tctatgagag agaaaaagtg agcagtttcc aagagacaga a 401

<210> 212
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 248
 <223> /replace="t"

<400> 212
 ctaacatgta ttatttcatt tttctaataa gaaaaaataa acaatgtgcc aatgtaaata 60
 caaatcacia aatagttcac ctttctggct gcctgctagc agatttttgt tttattttac 120
 tgcattgtgt gacaagccat ttcattgtact tttatctctg gtttaagtta tacagaagcc 180
 attctgtttc cttttgtaag agtttcattt aaatgtccag gtgtatgtgg gtgtgggtgga 240
 attaggagga agagcgcttc gccccatca attctgcagt tgccgtggca gcttagccgt 300
 gagggggtca ggtggccaaa gcagaggccg acccccgcca gccgttgctg tcaggccccc 360
 tctcgctctc tgggttcagga gaacgtctct agaagagcgt c 401

Seq-Listing-P1425.TXT

<210> 213
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 11
 <223> /replace="c"

<220>
 <221> variation
 <222> 26
 <223> /replace="g"

<220>
 <221> variation
 <222> 51
 <223> /replace="t"

<400> 213
 tttgcttcat aacaactgtc ttggaataat ttttatttac ctaaaaataa ggtaagagta 60
 tgtcaaagtt taggcatagt gtttattaaa tgcatagttt gtatcaatgc ttgtaagctg 120
 taattaggaa tgatatgtgg cattatatatt tacttttggt aatgttcact gttaacttcc 180
 tgaaatgtaa gctgtgctca cgtgaaaaaa aaaaatggat cagtttttct gagaagacac 240
 tgtaacacaa aaagacctac aggatagtat ttgaatagtt aattttaatg caaacaaaaa 300
 cttctatttc agcattaaga acacatatcc ttgatataag aaatagaaaa tattctagca 360
 catacctgac actggtaaaa tatatgtatt ctttttccct a 401

<210> 214
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 214
 ctctcagggt tgaaactgtg tgtgtgactg tgggagtaaa tagtctagtt tcccactctt 60
 catgtgtaaa tagacacaaa cagggtgactt ttcagagcct gggacagaga agacgacccc 120
 ccagtggaga cgactgaaca ggccccctcat gcatacagca tgccaccagt attgcccaga 180
 aatactgttt gtagaaaatc ggaaaggtag ccgggcccgg cattaatgct aggggtgtctg 240
 agatgagtcg aaggaacagc tattcttttt ccctttgtta tgtttcttcc atttccaagt 300
 ggatgaagct ctaactcaac ctttcatttg tttcaagagg gaggtatcag aaccacaaca 360
 aatggaatga aacctaccac taccacctgc ctggcacaaa g 401

<210> 215
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 388
 <223> /replace="g"

<400> 215

Seq-Listing-P1425.TXT

```

gaaataaaaa agaaaaagat ctttcttttc tcctggcctt taacttggca ggctttatct    60
gctcttcaga gtcactgaga tgagaaccag gtggcaaact ctgctttcct tctcctccag    120
gcaacgcaga ggcattctta actcttaacc tgcagacttt gaaactaggc acagaactcc    180
agagggggata ataacaccag caaatgttta gctaaaaaat ttagccatac atgccacaca    240
ttgtgctaca cattgagctc tttggtcctc acatcaacgc tgaattagga gctatgatta    300
tccccattct ttagattagt aagctgggta tcaccaagga gaagtacttg ccccaaagtc    360
acatggctca tatgtgttgg aagcaagatt tgtgacagat c                        401

```

```

<210> 216
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 216
tttttatttg tgaacaatc ctaggtcttt gtgttccttt tacctgattc ccaaactgaa    60
caaacccaag taccaaccat tcccccttga tttttagtca actgaagggt cagagagctg    120
ctccccctggg gaagaggctg tggacatgac atttgcacat gcagcatatc aacttggaat    180
aatttcccc tcatgtgggg gctactccca aggagtattat tctaaaccca aagtacatta    240
gttgccctgtg gcaccttaga aaaataaact atcctgggggt ccctgggtttt ggaatgtcat    300
ttcctttatg atatgtgtct ttgaaaggca aggagtggca gtaagcagag tgatataaac    360
atggggcctg ggctttaatt ctgtctgccc tcatccttta t                        401

```

```

<210> 217
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 138
<223> /replace="g"

```

```

<220>
<221> variation
<222> 335
<223> /replace="t"

```

```

<400> 217
ctctttcctt ctttctttct ggcttgcttt ccctcctttg ctgctgggtga ccacccatgc    60
ttgagcagtg ttttggctgc tttcccaactg atgagttttc caaaccttgt caggagctgg    120
cagttaaagt ttctgccacc agcttacaga aaatacaagt tggattgcct tgttcctgct    180
ttctttcaaa cttgcatgtt aatccatctt caccttgatt cctagaagag tcaaacatct    240
gatcctcagg tcaagcctga aggaaatggg tgtcccagct gaaaataaga tcgatcccaa    300
tttgctttac agtactcttg ttaaagatca gtgtgtaata ttttctctgt gtgatgcaat    360
gcttcttaat aaaaacaaaa agggatgttt gaccttaact t                        401

```

```

<210> 218

```

Seq-Listing-P1425.TXT

<211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 226
 <223> /replace="g"

<220>
 <221> variation
 <222> 294
 <223> /replace="t"

<220>
 <221> variation
 <222> 319
 <223> /replace="t"

<400> 218
 tccatgtcaa cagcaggcgg cttatatattcc agaaagttaa gtctgtgccca ttctctgcct 60
 gagccagtat gttacgaaga gcattaccat ggcgatttca cattctgaaa ctgtgcttgt 120
 ctcttaaagt ccacgtgccca atgagtcata gaggtgtttt gttctagagc catgtacccc 180
 ccaaaaaggg agtttgtaca gattttaccaa gaaactatta ttattatcta cagttcatgc 240
 agttacaaaa ctatctttgc ctctttttac tcacaatttg aaccaatct tttctaaggt 300
 gctggcctcc caatattgct gtagataatt cagccttggt ttcttatgat taaagattat 360
 gactcacacc agcctacaag cctggagaat tatactgaag t 401

<210> 219
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 229
 <223> /replace="t"

<400> 219
 agaattgctg gatgctttta agtcattcctc caacatgaac cagcttctta taaaagatga 60
 gacagttgca tttatatatc caaagctagc tgctatattt tctaagtcac gtctcaagta 120
 gagcatctag aaaaaacctg tatcagtagt gcttaagtct ggcactgcag ggaagctggt 180
 ttaaaattac agagcctctg gaattttcaa atgttcaaaa catccaacct agagcctggg 240
 aatctgtatt tttaatgagc atcgctcatg cattgctatg gaacacacat tgcatatata 300
 gcattttcta acatatagga tcaggccaga ggaagaatgt ctgtgtatga gaactcccta 360
 aatgatgcac agttccactg tctggttaca gttgaaaccg t 401

<210> 220
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 220
 tgaggcccca ttggtttaaa tatctcattt cttacttgtc aaagtgcacg aatgtccagc 60

Seq-Listing-P1425.TXT

```

attagaaatg cagttccttg gggctctggag ggcattgagg gctcccagcc ctgcttctta 120
agtgcacatg ctgctgcata gtatcagggt taagtcttag catccacacc ttgtcagcaa 180
ttaggtgaca gctaactgtg gtcaaggctt tctggggact gaatgaagaa ctgggggtggc 240
acaggtagtg aaggaggggtg agaggctggg ggggccatga caggggggtgt tgggggttgg 300
cagagcccaa acttccctgc tttccctgga actggctgca ccaagaagtt gaggtcctg 360
gtttgtttgg aatcagggtat ggtacaatcc attgtcccgt g 401

```

```

<210> 221
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 267
<223> /replace="t"

```

```

<220>
<221> variation
<222> 272
<223> /replace="t"

```

```

<220>
<221> variation
<222> 291
<223> /replace="t"

```

```

<220>
<221> variation
<222> 341
<223> /replace="t"

```

```

<400> 221
gcctcttctg gacgtgagac aatttgagtg cagtatttct ctagttgctg acccttccca 60
gctcctcctt tcaggggatg tgggtgcatc ctggcattgt cctgtcctaa cctagccctg 120
ctggtctcca tggctgcagc tggatatcca aacacccaac acacataatc atggctctgt 180
gccgtgagga ggagacaaga accccccaaa ccattctgtc gagtttccta tggttggggt 240
ctggttgat tttcttctt ttttttctt tccttttctt ttttttttt ctttgagacg 300
gagttttgct ctttggtgcc caggctggag tgcagtggcg cgatctctgc tcattgctac 360
aacctctgcc tctcggattc aagtgattct cttgcctcag c 401

```

```

<210> 222
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 53
<223> /replace="g"

```

```

<220>
<221> variation
<222> 137

```

Seq-Listing-P1425.TXT

<223> /replace="t"

```

<400> 222
cacatgtgag agaacagctt tccagaaacc acacttgagt ccacagcaga gcagaagggg      60
caggaggcat caggaccatt tccagatttc tctctggccc tgattgtcta gatttgcattc    120
caatcactgc aagagtgtat acaaaagttg ttagaaagat ttgggtttca cacagagtta    180
tgaaaacaag gtagaagcct gatgtcttca tttcccatga aatcttgtgg gtgtaaataga    240
aacatgtttt agtctcaaata cctggagctg tggggttcac aatggagaaa tatccagggtc    300
tcttgaacaa gactggacga taaccagggg cagttccctt tttccccac attcatttat    360
gagttggtca aactgttgtc tattcacagg agattcttag a                          401

```

```

<210> 223
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 329
<223> /replace="t"

<400> 223
actcttcttg agcagtgaac atcaagagat catggattaa atgggaaaaat tagtgtcaag      60
attacatcag aagaaaggca agtatcgcat catttctactg cccacaaaaa tacattcttt    120
ccctttccct ccactatttt aagacttcat tgaccttttc taagggtcca atttccattt    180
aacctctgtg ccagtcaaga gagcagtccc aagtctctaa ctttcttcac ccaatgatca    240
ctctttgaac tcaccaagca tgctacaaac agaaggaagc cattagcagg gggagttcga    300
acctatatag ccaaccataa attagaagcc caaggaagca ttttcaacca ctacgagggtc    360
actcaggctg actgctggca gtggcttctc atcgatgaca g                          401

```

```

<210> 224
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 224
gaattctgga atcagagagg agaaaccact tacctcaggg gctgaaggag ctttgggct      60
tcctggctag agtgctgagg aacttggtgc tctcaggctg ctggtgggag gagagacctg    120
ggtttgagga ggtgactggc caggcttatg gacggggatc cacatgatga atttctccag    180
cccctgtgca ctcaaactgc ggtaaaatca gttagtgggt ttgcgctttg agcagctcta    240
gtaattcatt tgggtgtgtct ttatagttta caaggcactc ttgcttctga gtttcccttg    300
gaggctgagg ccactcccag aagcccagta aagagcagtg gccaagtgc caaactgggc    360
ctgggctcag atcccagctc tgctcgctttc taactgtgtg a                          401

```

```

<210> 225
<211> 401
<212> DNA

```

Seq-Listing-P1425.TXT

<213> homo sapiens

<220>

<221> variation

<222> 292

<223> /replace="t"

<220>

<221> variation

<222> 341

<223> /replace="c"

<400> 225

cattgacctc ccagatctgc ctgtgatttg gggcttatag agatgtgttg attctgtcta 60

gtcaaagtga gagtcattgc agaacaaaac cagaatctta gtggtgactg tgcaaagcca 120

tttggcttaa tgattttacc aagagcatct cagaacacta gtattggtag tatgtagcct 180

tgtaataaaa tatatacaag tacatgttga aatgacttgt tattatatgg ctagagcaaa 240

cccacgtcat cctcatgatg tcttgctgtc acaatctcat tctctcttgg ggtctgacct 300

gactcctcaa gcaagagaac aaggggtggc agagctctcc aggaatgcac agccccaggt 360

gcccagcaga gggcatcaag tatgacagat attggaatga c 401

<210> 226

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 61

<223> /replace="t"

<220>

<221> variation

<222> 152

<223> /replace="t"

<220>

<221> variation

<222> 278

<223> /replace="t"

<400> 226

aagagcatct cagaacacta gtattggtag tatgtagcct tgtaataaaa tatatacaag 60

cacatgttga aatgacttgt tattatatgg ctagagcaaa cccacgtcat cctcatgatg 120

tcttgctgtc acaatctcat tctctcttgg ggtctgacct gactcctcaa gcaagagaac 180

aaggggtggc agagctctcc aggaatgcac agccccaggt gcccagcaga gggcatcaag 240

tatgacagat attggaatga catctgttgt gtgtgcagag cagactgact gagtggaacc 300

atgaccaaag agaactcagg tagactcaag tgcttctggg aaatttgaga aacttcctg 360

acagagaatt tacttcaagt cagatacctc cccaataatt g 401

<210> 227

<211> 401

<212> DNA

<213> homo sapiens

Seq-Listing-P1425.TXT

<220>
<221> variation
<222> 268
<223> /replace="c"

<220>
<221> variation
<222> 328
<223> /replace="t"

<400> 227
aaatttagta aagcaatatt ttattgttct agcaacaaaa aaattaagtt attacattaa 60
ttagaaagtg atctgagaac cttattttga tataggaggg gagcagggaa gtgctgggaa 120
gggaagggca tgggtccctgg ctaggaatcc atccctgggt ttgtgcccatt ggacctaggt 180
gaggacaggg atttctgttt ttgtgtccaa atgttgcat tccaagacc gctctggcca 240
accatgcccc catcctgtgc ctgtaaaaac cctgagacat tagcaggcag agacacaagt 300
agctggacgt cgagaggaat gtaccggcag aggaggacat caacagacgc ccgcagacac 360
caggccagta ggccgtcgac aaatggaact atgtggtgat g 401

<210> 228
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 134
<223> /replace="t"

<220>
<221> variation
<222> 261
<223> /replace="t"

<400> 228
gtgatctgag aaccttattt tgatatagga ggggagcagg gaagtgctgg gaaggggaagg 60
gcatgggtccc tggctaggaa tccatccctg ggtttgtgcc catggacctt ggtgaggaca 120
gggatttctg tttctgtgtc caaatgttgc atttcccaag accgctctgg ccaaccatgc 180
ccccatcctg tgcctgtaaa aaccctgaga cattagcagg cagagacaca agtagctgga 240
cgtcgagagg aatgtaccgg cagaggagga catcaacaga cgcccgcaga caccaggcca 300
gtaggccgtc gacaaatgga actatgtggt gatggattgg caagaacctt gaatcctgga 360
catgaccatt ttacaatgtt attgttaaatt ttttttcttg a 401

<210> 229
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 74
<223> /replace="t"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 141
 <223> /replace="c"

<400> 229
 gcatgggtccc tggctaggaa tccatccctg ggtttgtgcc catggaccta ggtgaggaca 60
 gggatttctg tttctgtgtc caaatgttgc atttcccaag accgctctgg ccaaccatgc 120
 ccccatcctg tgcctgtaaa aaccctgaga cattagcagg cagagacaca agtagctgga 180
 cgtcgagagg aatgtaccgg tagaggagga catcaacaga cgcccgcaga caccaggcca 240
 gtaggccgtc gacaaatgga actatgtggt gatggattgg caagaacctt gaatcctgga 300
 catgaccatt ttacaatggt attgttaaatt ttttttcttg agcaagggtat gtataagtaa 360
 gtaaataagg gcataatgtc aggtaaactg aatggctgga a 401

<210> 230
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 175
 <223> /replace="t"

<400> 230
 ttagcagtgc ctcccaccac agcagacaga aggtacatct cactctaccc tctgacatca 60
 gctccctcat ggaacttcct ttggccaatg agccgagagc agaggcgtga gttgtgtcta 120
 gccagagggg tcaaagtgtc ttgctgtgatt tggcttggct ttttgagctt cagcattctc 180
 catgggaaaa tcatgccctg agtaggcatt gtccttcaa cctgtgtcct ggaatgaaga 240
 cacatggaac agtctggaac ctaaaacaaa gcctggagtt cagctgagat cagctaagggt 300
 gtggctggga cctgtgcata tggaataaat gtttgctctt ataggtaaatt gcgatgtgga 360
 agttgttcat tactcaacat tattgcagca gaagcctggg g 401

<210> 231
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 127
 <223> /replace="g"

<220>
 <221> variation
 <222> 324
 <223> /replace="t"

<400> 231
 tacatgtacg tgtgcttgta tgcattatgt gcgtgtttgc ctgtgtgtgc 60
 atgcatgcgt gtgtgtgtgt gtgtgttctc tgtggagggg ggagactgga gattctcttc 120
 cccaacattc gaggccagtt tgccaaaaat cttggtgcta actgtatgtc cagggttacag 180

Seq-Listing-P1425.TXT

```
atccacacgc aaatgcagac tcaacaacac tgaggctcat cttttgggtt tctccccatc 240
ttcttcacca tgactcagtt ctccaagaaa aatgttggtg ctactttcag gaacagtcca 300
ggatgagagc ttaaggtaga gtccggacat gtgcatggaa gcacagccat gattctatct 360
aattggctca aacaaaagtc ttggacagta ttttggcttt t 401
```

```
<210> 232
<211> 401
<212> DNA
<213> homo sapiens
```

```
<400> 232
ggaatctgct ttactcaaag cccatcgagt ccaatgttaa tctcatccaa acacaccctc 60
acagcaacat ctagactggt gtttgaccaa acagctgttg ggtaccatag cctagccaag 120
ttgacacata aacttaatca tcatgggatc agtcccacca tgcccatgc ccacttttgg 180
accagtgttc tagcctcctg actgttcagg tgagttatgg gagaaaactt aggaccccat 240
gcaaatgcag actttctttt acattgtaaa taccactgac attcttgctc atccaactgg 300
gacatttttg ccattcagtt tgtcaagcaa atataacgat gcatattttc agcacacact 360
tccactgttt agcagatggc acatctgaaa catggtacat g 401
```

```
<210> 233
<211> 401
<212> DNA
<213> homo sapiens
```

```
<400> 233
gggggcgcgga gagagcagca agccgtaaca gctcgcgtaa aaggcgggag ctggggcttc 60
ctggggggttc cctagaagcg gacctcgaga caaggctcctg ggtgcaagcg gtttatttgg 120
gggatggctg caggaggcac agggtaggag cagggtctggc agggaaggga gagaagggag 180
gaagggcagt gaagagcaca aggatggagg ggctactccc gggcctgtgt gcagagcctc 240
agccctggct ctgtcaggca gaaggagctc ccgacacctc tgtcatctgc tggctgcgga 300
gaacctgggg ctgacgccgt cctccgggac ctccatccag aaaaggggcca cagaggctga 360
gggcgtcggg gcgggcactc cagggtctta ttctgtttgg g 401
```

```
<210> 234
<211> 401
<212> DNA
<213> homo sapiens
```

```
<220>
<221> variation
<222> 80
<223> /replace="g"
```

```
<220>
<221> variation
<222> 81
<223> /replace="t"
```

```
<220>
```

Seq-Listing-P1425.TXT

<221> variation
 <222> 227
 <223> /replace="t"

<400> 234
 ggagagcaga gtgacggcct agaaaggagg ttcccaggagg ctctggggag gcggaagagg 60
 ggacgcggtg tgttgagata cggggagaag ttcagagcag catgggcatg caggtgcctg 120
 cagaggggcc catctgggct gcaccccagc aggacagggc catggccttg tgtgggttcg 180
 gctggctgca cagcttcttg taaagtttgt ccccagggtc cttgggagta gaggtctttc 240
 ggaaggcacc atctccagag cgtgtttctg agtaactctg aggatgggtt ccgggttatc 300
 actgtgtgtt ggaaacagca gcgcccaggc tgccggagga ggctgggtctc cctggcaggt 360
 cctggctgtg tctagagttt tgtgggtcct ggagataagg c 401

<210> 235
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 372
 <223> /replace="g"

<400> 235
 agaggcagag gattgtagtt gtgaaaagtt tgtacattgg agtctggctt tgagtcccag 60
 ttttcccgtg gacaggatcat gtgaccttgg caaaataacc acctcccatg cctcagggtgc 120
 ctcatctgtg aaatggggat aataataaca cctacttcaa ataaaaacaat gcaaggaatg 180
 ccctagaaca aacgcctggc acatagtaag ttctacccaa gtatttatta ttataataat 240
 tgtataaaca tttaacgact tccttaaatt gtttcctatt acttgctatt ttgaatagtg 300
 tttcaattaa tatccttgtg atatgggttt gctgtgtccc caaccaaadc ttatcttgag 360
 ctgtaattcc cacagttccc atgtatcgtg ggagaaacct a 401

<210> 236
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 168
 <223> /replace="t"

<220>
 <221> variation
 <222> 277
 <223> /replace="c"

<220>
 <221> variation
 <222> 359
 <223> /replace="g"

<400> 236
 gatgtgtgtg tgcatatatg tgtgtgtgta tatatatata cacatacata tacagaaaga 60

Seq-Listing-P1425.TXT

gagagagaga gtctcactct gtcttccagg ctgaagtgca gtggcatgat cttggctcac 120
 tgcaacttct gcctcctggg ttcaagcgac ttttgtgcct cagcctcctg agtagctggg 180
 actataggtg caagttacca ggccttgcta atatTTTTgt atttTTaata gagacagggT 240
 ttcacatgtg tggccaggct ggtctcgaat tcctgaactc aagtaatcca cccacctcag 300
 cctccaaaag tcctgggatt acaggcgtga cccactgtgc ccagctccca aaatgtataa 360
 ctaagtgaga agggaaggat gtagaatagg gtgggtgttt t 401

<210> 237
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 215
 <223> /replace="t"

<220>
 <221> variation
 <222> 360
 <223> /replace="g"

<400> 237
 ctcaggTgat cctcccacct cagcctcctg gctagctggg actatagaca tgtgccacta 60
 tgcttagcta atTTTTtga tTTTTtgtt gagacaaggT tttacatgt tgcccaggct 120
 gttcttgagc tgggctcaag tcatccacct ggcttggcct cccaaagtgt ggggattaca 180
 gcatgagttt ctgggcctgg tctctttgct acacctgtgc agggTctttt gcaggaattc 240
 cttgtggtcg ttggcaggTg tcatgcctta tcttggttag gcaagccttg gaaagctcct 300
 gtgaagattg tcctattagt atcagtttac tTTTTgaaa aaatattttt attgatttta 360
 gagacagaat cttgctttgt caccCAAatt ggagtgcagt g 401

<210> 238
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 296
 <223> /replace="c"

<400> 238
 aattctactt ataatgttct tggcctggaa gtcaaggcct cacatatctt acttcaatcc 60
 actatttctg gcaggacacc tcaccacact tcccttgctc ctgtccacat gagctcttag 120
 gccaggggca tgcttctctg ttgaccaca tgcacctcct ctctgttat ttctgccatt 180
 tgagatgctc cccttcctac tgctgcatta actgaaagcc acacttcatg atccagaaga 240
 gatgccacct cctctgccaa gctggccctg actttccagg cagaaatgat gtattaccat 300
 atggcattca ttgctttaca gtgaattaaa gctattattt ttagttgtaa aaatacattt 360

tttaaaacta caagtgtaaa atacatttgt gttgcaaaag t 401

<210> 239
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 106
 <223> /replace="t"

<400> 239
 tgctcctgtc cacatgagct cttaggccag gggcatgctt ctctgtttga ccacatgcac 60
 ctctctctct gttattttctg ccatttgaga tgctccccctt cctaccgctg cattaactga 120
 aagccacact tcatgatcca gaagagatgc cacctcctct gccaaagtgg ccctgacttt 180
 ccaggcagaa atgatgtatt accatatggc attcattgct ttacagtga ttaaagctat 240
 tatttttagt tgtaaaaata catttttta aactacaagt gtaaaatata tttgtgttgc 300
 aaaagtccag ataatacagg aaaataaaag cttcccgttc cctcagctct cttctaattt 360
 taattcttgg agctattact aagagtgggg gccgggcgtg g 401

<210> 240
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 137
 <223> /replace="g"

<220>
 <221> variation
 <222> 334
 <223> /replace="t"

<400> 240
 taagcttcag aagaatctta gtagaaatgc attgtttgga atgcatatgc tttggtctca 60
 ataaaaatat ccggttgacag agatatttca tgtggtttga actaacaggc aaaaaattaa 120
 aaattcattg gtatacacta attcatgcaa ttgtatattt tggaggtaag tgtaatggca 180
 taggtttgct gtaatggaac tgattggaaa atgatctctt ggagaaaatt tattgctggt 240
 cataagattt ctttggttta gaaaaatgct gggtttagta aaatctgagg cactaaatga 300
 aagtctgctt taataaaaat gtggatctga gaactgtggt ttttagtaag tgggcatttg 360
 atccattaaa attgtattgg ttttattctt tacgttggct t 401

<210> 241
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 262

Seq-Listing-P1425.TXT

<223> /replace="g"

<220>

<221> variation

<222> 279

<223> /replace="g"

<220>

<221> variation

<222> 355

<223> /replace="g"

<400> 241

agggcaggca agatggatga ggcaaataac tcaatgagca agtgacggca ggcccttcag 60

gccgccttct catgcaattg atagttgctc cttcctcaca tttggtttgg ttccctaaat 120

gttaaattcat ctctaggata agcagggtgat agcccatgaa tggagccaga tgctgagatg 180

ttgttcagct tgagtggcct gcagttcatt cctgaccaag ctgtggtttg ttcttgctgg 240

ctgttggatc acctccttca aagattcatc actggataag ccaactgttg ccattggagc 300

tattccacca agactgatct gaactctccc tatgagactt ttctttttcc agtaagctcc 360

atatctgatt ctatgaaaag ttcagcccaa atgagaggac c 401

<210> 242

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 198

<223> /replace="c"

<400> 242

agacatgcaa aatataaaca cacatttcat tggtattaga ttccacaagc ataaaattat 60

tctgtcagag tgactatttg gttctttctc atctctatag ttatctcttc gcagacaggt 120

aacagcctgt ggaggaccac actgggtatc atttgtccgg cagggtgctgc gatcctaaga 180

gggtaacatt ctccccagcc actggaagtg ggtggaatgg agccactata gtaaatgttg 240

ttggatgcct acttagcagc ctgcctcctg cccctgcct ccttcctgag agactccaat 300

ttactcagct gtgcactgga cacaccaccc tgattgtggc tggcctcacc tgtaggttgt 360

ggcaaacttg actggcctaa gggtaatccc atatgcctta c 401

<210> 243

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 13

<223> /replace="c"

<220>

<221> variation

<222> 108

<223> /replace="t"

Seq-Listing-P1425.TXT

<400> 243
 atgggaaaaa agaggggtctt gataacattc taattagccc caaacctctt attcccatga 60
 gccagtctct tctctttaag ttgatgctag ctgccgtttt gtgttatctg ttacagacta 120
 atacaatttg caataattga agatgcaata tttattgata tattattatc aattgaagtc 180
 catagcttac attaggattc actcttagtt ttgtatgttc tgtggatttt gacatatgta 240
 aaatgacttg tgcccacat tacagtatca catagaatgg ttctactgcc ccaaaatacc 300
 ctctgttcca tctattttatc cctcttcctt tccatggacc cttgacaacc actgatcttt 360
 ttattgtttc catagttttg cttttccag aatgtcatgt a 401

<210> 244
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 244
 agtttcctat gaaggcagtc gctaaagaac attccacttt gcataaaaga cttcatttca 60
 aggctttcag tcaaattgcat ggctagctga tggatccac tgggcttaac aagcacaatt 120
 aaggctttca tcaaacctta atagattggt gtcattgagc actgaccagt gcttggaaatg 180
 tttttcttct ctgcctatca tccatgtctg aaattttcct caaatattgg caaagagaac 240
 atataagggg ggattagtag ttctccttta ttcatatatt gtgatatttt aaaggcatct 300
 ttcagtaaag gcgttatcat attagcatct aactgactga tccaatgggt tatatcaaaa 360
 tgcaagggtgc gtacacatgg gactcatatc tcaaattcat t 401

<210> 245
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 313
 <223> /replace="c"

<400> 245
 gcctgtttct aggtccagaa tggatttggc taggttgcct tctaggagt ttatagattt 60
 gggttttaca ttaagtctg taatccatac tgagttaatt tttatatata gcataaggaa 120
 agtgtcctgt ttcaatcttc tgcataatggc tagccagtta tcctagcaca atttattgaa 180
 tagggaatcc attcctcatt gcttgttttt tgtcagggtt ttcaaggatc agatagtgtg 240
 atgtgtgcag ccttattttt gggctctcta ttctgttcca tcagtctatc tgtctgtttc 300
 tgtatcaata ccatgctgtt ttggttacta tagccctata gcatacttca acgttgagta 360
 gtatgatgcc tccagctttg ttcttttgct taggattgtc t 401

<210> 246
 <211> 401
 <212> DNA
 <213> homo sapiens

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 310
 <223> /replace="g"

<400> 246
 tttaaaatag ttttttctag ttttgtggag aaatatcaat aatggtagtt tgataggaat 60
 agcattgaat ctataaattg ctttgggcag tatggccatt ataaagatat tgcttgatcat 120
 tatccatgag catggaatgt ttttccattt gtttgtgtca tctttgtttt gtagttctcc 180
 ttgtagaggt ctttaacttt ttcggtttagc tgtattccta agtatttttt tttcttgtgg 240
 caattgtgaa tgggattgtg ttcctggcct ggctcttggc ttgactgttg ttggtatata 300
 gggatgttaa tgatttttgt acattgattt tgtatcctaa gacttttctg aagttttgct 360
 gatgttgttt atcagcttaa ggaaattttg ggcttagact a 401

<210> 247
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 150
 <223> /replace="t"

<220>
 <221> variation
 <222> 318
 <223> /replace="t"

<220>
 <221> variation
 <222> 343
 <223> /replace="t"

<400> 247
 atctgctgtc ctctgggcct agtttcactc ccatggcagt gttagcatga gggctggatg 60
 ctggtagggg cagggatggc tagttctgtg tctgtccagg ctccatctgt aatggtgata 120
 agaagggaga ggggtgggtgg actgcactcc ttgggcaatg gtgggaccag gaaagcaaaa 180
 ctcacctgtg cagacacatg tcagcaaagc aatgtgggga gttgttgtgg gcctggggga 240
 agcagtgcctt tggggagggg gtgggagggc tgggtgcatgg caactgcctc actggagtcc 300
 tctgctgctc aggcattggtc cactgttgca gaagctatgg tgcggtccca cagggcagcc 360
 aagacagccc tgcaagcagg catggccagg ctggggtcct g 401

<210> 248
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 31
 <223> /replace="g"

Seq-Listing-P1425.TXT

<220>
 <221> variation
 <222> 112
 <223> /replace="g"

<400> 248
 ctggcatcct ggagctcaga gcagaggaga agaggtcaga cagtggatct agaggggcag 60
 acaaaaaatat ccagaacaag ttctactctc catgggcctg aactagtggg tacaattgct 120
 ggaaggtaga aagtgttagg ggggtgttcag gtatgggatc cagatgaagt gggagagaat 180
 tttagtatgc tttgtgaaga tttcccatga tttgaaattg tgtaaggact gtcccaaatt 240
 ttgcaaatga tgctatatca taagataaag aagacagtca tactcatttg gtagctatat 300
 ttatataatg tattcatata aatgtataaa tatgtatatt atgtaagtgg ctgatgttta 360
 catttgctta atcatatgag aatatagcaa aattataact g 401

<210> 249
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 234
 <223> /replace="t"

<400> 249
 tattttcatt agcatagtgt ccttcagggt catccatggt gttgcaaatg gcaggatttc 60
 tttcatttga aggctaacat tccattggat gtatatgcca cattttcttt atccattcat 120
 ctgttgatag gcatttagat tattttccata tcttgccctt tgtgaacaat gctgcaatga 180
 ccgtggaagt actggtattc ttttgagatc tgatcccaat ttcatttcca ctggatatat 240
 acccagaagt gagattcctg gattgcaagg tagttctagt tctataatgg ctacaaccaa 300
 tttacattcc caccaacact gtgtgggttt cttttctcca catcatcacc agaatgtttt 360
 gttttatttt atttttaaaa taatagccaa accatttgga t 401

<210> 250
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 274
 <223> /replace="g"

<400> 250
 tttctgagaa gtgcacgtta aacagcatag catttcagcc ttgaagtgg aagtgtagac 60
 tatttgtgat aatgaatata caactgaggt gttccactgg agcaagtcac ttagaatcac 120
 agaaaagcgt ttatcaggcc catgatgtaa atttaaaatg tcttattcct cattttacaa 180
 acttatgtgg gcatctttcc ttctcacagg aagcccatct cagtgtggaa aatcagtcct 240
 gtatgaacca gatttagaac agtgccatga ttcattcata ttcaagagtt aactgcttct 300

Seq-Listing-P1425.TXT

acacagagtt ggtgtcagaa ggcattgtgc tgagtgccag caactccttg ggggttgagc 360
 ttagatgggtg tcctctgttc tagcatgtga atgctgtaaa c 401

<210> 251
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 82
 <223> /replace="t"

<220>
 <221> variation
 <222> 388
 <223> /replace="t"

<400> 251
 tgtcccaactc agaggggagg ttctgaggca tgctccctac agtctcccag agtggcccca 60
 ggaggggctaa gcctcagttg cccatgatgg caatgctcat tattgcaccc tcgtggcttc 120
 cttctctttc ctgcctcatt tcgtactccc aagctgtgct cccctgcatc acttcctaaa 180
 ctaaattccct tcattctaaga acttatccca gggctctgctt tggggaagaa caaaagacaa 240
 agcacttatg atataactcaa gactaacaga agcataagct tctgaggatt taaatgcaaa 300
 tagaaacaat gcaatagaaa tagactaaaa ggctgtgct ctccttaacc caccagcct 360
 atttcagact gatgggcttg gggtcagttt ctgccagagt g 401

<210> 252
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 94
 <223> /replace="g"

<400> 252
 ttttactttt tggaaagcca agcagggtccc agagtcgtgg ggcagtactt ggcctcatct 60
 ctgaggccac ccattctgct gctggcagcc acaatgatgt acccttggca ctatgtcgt 120
 cccccacttt ggcattcctca gtttttctaa actcatgggt gagagacgaa tgacgtcaga 180
 ggcccaaacc tttggatgct gatctaaaag catcaacaa aaccacaacac ccgagcttcg 240
 taagttccca tttgaagcag gagcagtttt tatagcaaca gacaaaggat tgctctgtcc 300
 ttgttggaag tgcttgagga ccaagcacag aggtgggcaa agatcgtcat cagggttct 360
 gctacctgtc ttagccccag cattcttcaa aagagatcct c 401

<210> 253
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>

Seq-Listing-P1425.TXT

<221> variation
 <222> 69
 <223> /replace="t"

<220>
 <221> variation
 <222> 242
 <223> /replace="t"

<220>
 <221> variation
 <222> 310
 <223> /replace="c"
 /replace="g"
 /replace="t"

<220>
 <221> variation
 <222> 334
 <223> /replace="c"
 /replace="g"
 /replace="t"

<400> 253
 taaatttgaa gtgttatggt gagatggtat cctggagacg tatgtgtgaa taataaaaat 60
 gtcagcacct gctgcaaaga accactgaat gaaaggaaag gaaaatacca tacatcaaag 120
 aaagaggttt atttagattc aaagtcccct gggttaggac cacacctagt acactgtcac 180
 atccaataaa tgttgagaag agactgtcta gcacatgaga cacagttgtg gagatgtcct 240
 aggcaggctc caccacagaa gcaaaacatg atccagttgc aatggaaatc cactctttgc 300
 tcatgtgcta tttcccaagt acttgcttat taaaatataa ctctgctaata gaaccaaaca 360
 cagggagttg ctttctagag ccgaaaaaaa gggactgtga g 401

<210> 254
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 35
 <223> /replace="c"
 /replace="g"
 /replace="t"

<220>
 <221> variation
 <222> 59
 <223> /replace="c"
 /replace="g"
 /replace="t"

<400> 254
 gttgcaatgg aaatccactc tttgctcatg tgctntttcc caagtacttg cttattaana 60
 tataactctg ctaatgaacc aaacacaggg agttgctttc tagagccgaa aaaaaggagac 120
 tgtgagaaaa agctaggggtg gtctaaggag tgaattagtg acaatgtcag tggatcaact 180
 cccaacacat aggttttcag acagggaatt agtctaggca gaagttcatc agaccagtt 240
 cttagatgtc tttgggtcttt gtggaagatg ctgttggtgc cctgttcgtg tactccatgg 300

Seq-Listing-P1425.TXT

gctcttactg gaagcaccat ggctcattca ttatcagggg gctttcttga gcacactttc 360
 ttgcacaagg tggggcacag gctggcattt gtaggggagg t 401

<210> 255
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 255
 actgtcctct aggggtgctaa cacagtaaga ctggatacct ccttagacca gtgcacagca 60
 tgggtcaaattg cactgaatcc catccacaaa gacagcctca ttaactattc agaaaattgc 120
 tatttttgtgc ttctaattctc tgtaagaca ctgacaagaa gtcattctag tcatgtgtta 180
 cagacatgga gatacaaagc tcagattcgc cttcaaggaa ggacttgtgg cccagatgca 240
 ggggtgtggc tatcaggtgc ctccagggtg tgtctcagct gcagagatca tccttcctag 300
 ggtagcgtgc atctggtggc tgagtgaat ggagaataaa agtcttgagc ttccccctga 360
 tgcttgatga cttgcgcaat actcactcta gaggtccctg t 401

<210> 256
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 35
 <223> /replace="t"

<220>
 <221> variation
 <222> 94
 <223> /replace="t"

<220>
 <221> variation
 <222> 145
 <223> /replace="t"

<220>
 <221> variation
 <222> 190
 <223> /replace="t"

<220>
 <221> variation
 <222> 222
 <223> /replace="t"

<220>
 <221> variation
 <222> 276
 <223> /replace="g"

<220>
 <221> variation
 <222> 298
 <223> /replace="c"

<400> 256

Seq-Listing-P1425.TXT

gagggtttcat ggagagtgct ctcaggatcc acacctgcga aataactata ataataataa 60
 taataataat aataataata ataatagtga aggcctggac tgggtagagg aagaaactga 120
 tccaaaacaa acgtgcaatg aggcctcagc caattcctgg ggggcagatc tggctgtgta 180
 cagcagttcc tgaataatgt tggttcattc gatgttcttt cttataacg ttgatgagaa 240
 aacaattgat ttgcacctgg ggccaccatc tgtgtatatt tgcacaacct ccccataact 300
 gcatggggtt tctctgagta ctctagtttg ctctctcatt ccaaagtcac gcacattagg 360
 ttaattggca tgtctacatg gactcagtgat gactgaatgt g 401

<210> 257
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 42
 <223> /replace="g"

<220>
 <221> variation
 <222> 64
 <223> /replace="c"

<220>
 <221> variation
 <222> 181
 <223> /replace="g"

<220>
 <221> variation
 <222> 225
 <223> /replace="g"

<220>
 <221> variation
 <222> 396
 <223> /replace="t"

<400> 257
 tgagaaaaca attgatttgc acctggggcc accatctgtg tatatttgca caacctcccc 60
 ataactgcat gggttttctc tgagtactct agtttgctct ctcatccaa agtcatgcac 120
 attagggttaa ttggcatgac tacatggact cagtgtgagt gaatgtgagc atgggtgtga 180
 atgtgctctg ccatgagaga ttgtcctgtt cagggctggt tcccacctca ctccgtgagc 240
 tgctgggatg ggctctggcc acccatgacc atgaactgga aataagcagg taaagaatta 300
 tcttacttgg ttttattaat ctttcttaaa tgtatgtata gttcacattt atttcaatgt 360
 ttaatattag aaatgttttg cttttattta gaagtgtggt a 401

<210> 258
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation

Seq-Listing-P1425.TXT

<222> 81
 <223> /replace="g"

<220>
 <221> variation
 <222> 108
 <223> /replace="t"

<400> 258
 attgattttt atgtctatgc ttacaccagg agcacactgt tttcattttt gtagcttttt 60
 agagagtttt gaaatcaata agtgtctttc aattttgttc accttttcaa aaataatttt 120
 gggtattctt gagtttgcac ataaaatttg gaatttctga aaaaacaaaa actgagattt 180
 ttataggggt tgtattgaat ttttatatca gttttgggaa tattgtcatc ttaacaatat 240
 tgagtcttcc aatccatgta tatggatgtc ttttcattta tttatgtctt taaaattttt 300
 tttaaataat gtcctgtagt tttcattaaa tatcttacac ttctttgggc aaatttattc 360
 ttaaatatat tataattttt gatattactg taaatgatat t 401

<210> 259
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 259
 aaattgggac aacttagtgt tcgagaaata gagaaatagc tcaaggagct attagatacc 60
 aaccataacc atgttggttt ctgaggggtgg gagaaactag aagaaagttt gacattactc 120
 tcattccatg agacaacctc aagaacacaa acccaaacta tccaggtagg acttttagtt 180
 tagggagacc accaaaagaa atggagccca tttcctctgg tgattcaaca agattaacag 240
 cccctcctga agtttttgtc cagtggccta gaatctaaat atgtgctcat acccagttct 300
 ttgtcttcaa ttcccagatc ttctgtgtga ctattctga aagtccaggt gtggaaggga 360
 gaggcgcatg gaggaaaaag ccaggctcag aatttatatt t 401

<210> 260
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 41
 <223> /replace="g"

<220>
 <221> variation
 <222> 139
 <223> /replace="g"

<220>
 <221> variation
 <222> 399
 <223> /replace="g"

<400> 260
 atgtatctat gggtgagaaa ttcccattaa atattggggc aagggtcaga tgctgtagat 60

Seq-Listing-P1425.TXT

```

atttgtttac attttatcaa atgctttctt acatgtgaac cctcaatct ctgagaaatc 120
acctaagggg agccatggat ctgcctcctc caggtttcat tattgcatgg aatgtgaggg 180
gatttctgtc ttaattaatg tataagccag ctcttctgag tttgggtgga tatccttgag 240
gagaaaggta gctaaaatta gcagcctcta ctctcttctg tgttccttat aaaaaaaaaag 300
agaaactgtc tcattctttaa gaatggacca gttatgaact tccaaccttt ccattaatgc 360
tttgaagcaa tgatggtgct ggctgatgtg cttaagtaag a 401

```

```

<210> 261
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 156
<223> /replace="t"

```

```

<220>
<221> variation
<222> 290
<223> /replace="c"

```

```

<220>
<221> variation
<222> 388
<223> /replace="g"

```

```

<400> 261
gatttaacaa gaactgcatg tattccctgt tatgtgcatg taggtatgag tgtatgtgtg 60
ttatgagtgt gtatgtgtct atatgtatgt gtgtgtttgt gtctgttggg gagagaaatg 120
ggataaaaag gatcagaatc tcacgtagac ttttcctaag tcattttccc cccaaagtct 180
catttgtcca cctctatgaa acttacttgg ctgagaactg ctgccaaatg atccattttc 240
taatgtgtta gtaatcacta catgaatcct cttgagaaag agctgggcca ggagaactta 300
atgacttcca aggtcacaca gcaaattccag ggccgagcct ggttccccgc tcctgttcca 360
ggctcctccc atgccaccac atcatcaagc ttgacatag t 401

```

```

<210> 262
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 262
aaagcatctt ccaacaaaaa aataattcag gaccaggtgg cttcatggct gaattctact 60
gtacttttaa agaacacctt actctaattc tcctgaaact attccaaaaa ttgaagagga 120
gggaattctt cctaattcat tccgtgaggg cagtattgcc ctgatattaa agccagacaa 180
tgatgcaaca aaaaagaaaa tggatgaaca tagatacaaa aattctcaac aaaatactag 240
caaactgaat ccaagggcac ataaaaaaat acaccacgct caagtgggaat ttatcccatg 300
gacacaaaga tgattaaacg tatgcaaadc aataaatgtg atacatctta tcaacataat 360
aaatacaaaa accatgtgat catctcaata gatgtggaaa a 401

```

Seq-Listing-P1425.TXT

<210> 263
 <211> 401
 <212> DNA
 <213> homo sapiens

<400> 263
 acgtaagtgt ggcagcatct aaacaaatct gtcttcattt caaggaagag aacgctgata 60
 atgcacatgg atgttgcaac aatgtcaaat tgctatgaaa atttctaaat gaattttctg 120
 ctcaattgcc taccttggtg caaattaata acaggcagtt aacataactg gtagtggtct 180
 gcagaccaca ttctgagtaa tactacacaa ttactgcct gcatccctag aggggatggg 240
 ggaagaaata ggctaaatcc taaaatgcca tgatgccata ttcaaatagt gttttatgaa 300
 gaattgttca tttagcattc agcactgggc agtgattgaa cttgagggag gcaaggagtt 360
 ttagaacctg taatatacca ggtaagaatt tataaaaagc t 401

<210> 264
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 153
 <223> /replace="t"

<400> 264
 tcatttggca ttcagcactg ggcagtgatt gaacttgagg gaggcaagga gttttagaac 60
 ctgtaatata ccaggttaaga atttataaaa agctaacaga acagggttttc ataaaagtgg 120
 gactgagagt tttagggaca tgcagaaaaa atgggggatat tgtaattat cccttattct 180
 tattttattac acttgtcatt agttattata attaattatt agtgatcctt aattaatctt 240
 aaatatttta tgattattta aacatgaatt ttatgaatat ttaaataatt ttgtaaatat 300
 cataaaatat tttatgatat ttatcaattc agttatttca gataaaagca ctgaattagt 360
 agattctgaa caatcagtta agactgatca aatactaaat c 401

<210> 265
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 129
 <223> /replace="g"

<400> 265
 ttgggggaat cctttccatg cctttctctt taactgatct caggcaaaat gtttgcctg 60
 gatgtacaat acttaaaaga gttgatttaa aatttcctga aaataagttc atctcagctt 120
 ttgtgtgaaa aaggaagttc tatgttggct ggtgaccatt tcaaagctac cctcagtcct 180
 acaattagtg tgcttggcaa tgctattgga cattggaatg caaatgttca catccacct 240

Seq-Listing-P1425.TXT

tgagcttgca ggattttgat gcatttcctt tttgttggac aaaatagtga gtattcccta 300
agattacttc cagttgcaac ctgaacaaag agaaatgcat ctaaatatcc tgctccaaag 360
cctttgaact tcaccaatgc ataactcatg ggacacttat c 401

<210> 266
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 88
<223> /replace="t"

<220>
<221> variation
<222> 161
<223> /replace="g"

<400> 266
ggctgtttct aagactgatg tggcttaaca aggaattttc ccagaccatc tctactctcc 60
acaattttca aacaggatta ttactttgtc tttcacctca gtgccccatgt gtttgtggat 120
ccctctagat acttgctttg ctatttctta catctctaata atgaagaatt aatgtcccag 180
ttataagaac tttatgtcct gtacgtagat gttctctagt cacaccctg acatgtgtga 240
ggcctgggaa gagggccaca tcccatgggc acaatattta aaagttgtaa atcaagtggg 300
aaagttgtta aataaaacag attctattct tctacattgt cagatattcc accttcatca 360
tgataaaata gaaaaaatatg tgcaaacagg tttttgtgtg a 401

<210> 267
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 13
<223> /replace="g"

<220>
<221> variation
<222> 26
<223> /replace="t"

<220>
<221> variation
<222> 247
<223> /replace="t"

<220>
<221> variation
<222> 275
<223> /replace="g"

<400> 267
ctatccaatc taatctaatac taatgcaatc taatctaatac taatctaatac tctatctagt 60
ctatcatcta tctatctaata ctatcatcta tctatgtatc tatctaatact atcatctata 120

Seq-Listing-P1425.TXT

```

tctacatatt tttcaagtgt ttacatgaag acagatatta tgggttggaa ttaatgggac 180
agctgagact atggtttgag tcaatcagaa gagcttggat gctaaatctt gctaggtaag 240
agaaaccttg agaaagaagg gtaaaaggaa gtggacaaag ttacataatt tattttaattt 300
gtaatgaaac acagtggata gtattaatta taattttaca tataatttct gggataagaa 360
acaaaagcag ttttattagg taaaatatta gtctgaaaca t 401

```

```

<210> 268
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 214
<223> /replace="t"

```

```

<220>
<221> variation
<222> 348
<223> /replace="c"

```

```

<220>
<221> variation
<222> 381
<223> /replace="g"

```

```

<400> 268
cacgtaagaa gtgccttttg cctcctgcta tgattctgag gcctccccag ccctgtggaa 60
ctgtaagtcc agttaaagct ctttttgttc ccagttttgg tcatgtcttt atcagcagtg 120
tgaaaatgaa ctaatacggg tggatagaag ggtggaggga tagatggata gaatgggtgg 180
actcaatctt gttgcccttc tttttcttca ccccgtttct ctaccctctg caggaagagc 240
ccaccttact tctcagtcta agaaagtggc aagcactgct gggctctttc cacacctgta 300
gttcctcagt tttctgaaac ataggttgtg tgtttctaat ctggcaaaga cttgaaggaa 360
aaaaaatcct ttttaaagtc attgtaaaca gatattactt t 401

```

```

<210> 269
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 39
<223> /replace="g"

```

```

<220>
<221> variation
<222> 54
<223> /replace="t"

```

```

<220>
<221> variation
<222> 55
<223> /replace="t"

```

```

<220>

```

Seq-Listing-P1425.TXT

<221> variation
 <222> 164
 <223> /replace="g"

<220>
 <221> variation
 <222> 395
 <223> /replace="t"

<400> 269
 tttgtgtact ttttgattgg ttgtctcagt aggcatacaa tcacttggtg cggcgtggtg 60
 gggggagctt gttgatgcac agatagtggg gttccatcgc cagggtttct gggtcagaag 120
 gtctgggtgtg gagactgaga atttgcattt ctaacaagtt cctaggtgaa ctgcagaatt 180
 acattttaag aacaactggt tggagcaccc ttgccttaat aatgctgcag agactttctg 240
 ggctgggtcca ggtgtcttgt ggctccgctt ctgctgtgtc aatttttgaa cagcatgtgg 300
 aggaaagatg ccctctccag ggtgtggtga ggagttagga caatgtgggc atgtctgagc 360
 tgtagtgggc atgggtgatt cagcaaggac tgaccggaca a 401

<210> 270
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 321
 <223> /replace="g"

<220>
 <221> variation
 <222> 386
 <223> /replace="g"

<400> 270
 tgcagttcag acacagtggg tttcctgcaa ctacttttg ctatggcgac ttttgttatg 60
 cacagtgaac aggaagtaga aatttgcaga atataagcct tcttcacagg aaacgtatgt 120
 tggagctcac cacaccatac aggctgctga ttttaatacaa ccaggatatg tgcaaattctc 180
 cgaggaatgg caaatgccat tcaccttcac ttttttcacc ttccttctcc tcctcctcct 240
 caccttcatt tttcaataac ccaattatgt gctgggtgcat ataaaagtaa acagaaaatg 300
 aataagctgt ggactttgaa agatagtttt tgagtttaga atctgaaggg ggagaaaagg 360
 ccacagaaac agggtaaaca gttaaagcaa acattttaga c 401

<210> 271
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 305
 <223> /replace="t"

<220>
 <221> variation

Seq-Listing-P1425.TXT

<222> 324
 <223> /replace="g"

<400> 271
 ttttgtagca gaggaatcat tcttgaaggt cccaagatcc tttctgctag acttcctatt 60
 cttatagttg tttctaaact taattctttc tggaaaacag aataactgca agaaaaaatc 120
 tacatcctga aagggttgaa cccatcttga aaatggcaaa atctccatcc tggtgatcac 180
 tggcaccatc actcccagta tagccatcac tctatgggat cctgggcact gcttagcact 240
 aggaaggcga atggctttta attatgattc ctgtcctcaa gagataagtc acattgttga 300
 aaacctgaca tcaacgtaca aagattcata atcataaaaag gtaactcttg gtaagtcatt 360
 ataatcttat taattgcttc taatggtaag tcacatcaat g 401

<210> 272
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 38
 <223> /replace="c"

<220>
 <221> variation
 <222> 63
 <223> /replace="c"

<220>
 <221> variation
 <222> 279
 <223> /replace="g"

<400> 272
 tattatcttt gatgcaatgt tatcattata ctttatgact tttatcatgc tttctcttag 60
 ttatttgaac ataattataa tggctatctt gaagtccttt tctcttaaatt ctgatgtttt 120
 gtcattctca cagacaaatt tatgttttct gctttttctg gtatatggct catatttttc 180
 tgttttcattg catgcctcat tactttcttt tgggaagtgg acaatttaga tcatatgtat 240
 tgcagcaact gtgggtagta gcccttcccc aatgcttaac ttgtattgtt atttgcttct 300
 ttatgtttta gtgagtggct ggattatctt agcgatgtct gtttacctcc aacagtggta 360
 aacctctgag gtcgtttctc agggaggtgc agttttgagt a 401

<210> 273
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 4
 <223> /replace="t"

<220>
 <221> variation
 <222> 382

Seq-Listing-P1425.TXT

<223> /replace="g"

<400> 273

```

gaagtctgac agagagtgtg tgtgggttata gtggactgta tcagttcaaa gacccaaaga      60
ttagctattc gtttgtgctt gggttttaaa gtggagtttt ctgagctttc tttgttcagt    120
attcactaca attgagtaga ttttggggaa gaaatctgta ctgtatttgt gtaaaattac     180
aaaataacac tggtttatgt gtgatgttat atgttttccc caattttctt tttattatcc     240
tttgtaaaat tgcaaggcaa tacagccttc caattacagg gaccactgac aaacgtaaac     300
agccatcaag taccagttgg cacacatctc ctgtagtgca tgccattgcc atcgaccac      360
tcctcaaaaa tgcaccaca aacttattca caattacgga t                          401

```

<210> 274

<211> 401

<212> DNA

<213> homo sapiens

<400> 274

```

gactgggcaa tttacaaaag aaagatattt aagggactta tagttccaca tggctagggga      60
ggcttcacaa tcatggcaga aggcaaggag gagcaagtca tgttttccat tgatgggtggc    120
agtcaaagag agagctgtgc aaggaaactc ccatttttaa agccatcaga tctcatgaga     180
ctcgttaact atgaggggaa gagtgcagga aaaacccaac cccataattc aatcacctcc     240
caccaggttc ttcccgatcat acatgggaat tgtgggagtt acacttcaag atgagatttc     300
agtggggaca cagtgaacc atatcattcc accccagacc cctcccaa atctcatgtcct      360
cacatttcaa aatcaatcat gccttaccaa cagtcccca a                          401

```

<210> 275

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 38

<223> /replace="t"

<220>

<221> variation

<222> 45

<223> /replace="t"

<220>

<221> variation

<222> 118

<223> /replace="g"

<220>

<221> variation

<222> 144

<223> /replace="g"

<220>

<221> variation

<222> 349

<223> /replace="g"

Seq-Listing-P1425.TXT

```

<400> 275
tattcattaa actattccac aaataaatgt catatgagaa cttacagctt taataagagg      60
atgaaacaac tctggaaaat cagaaaagaa tgaatgggaa tcaactcact gatgtgcaat      120
gatggaggat gctgagggct ttaagctgca gcaacttact taataagttc ccaagcagga      180
gagaacttgg cttctacagg gaattaaaaa gtttgccaga acaagttggg ctggagacac      240
aggcagctca gagtcttatt ggtcatgcta aggagatctg agtcttagtt acatgaacaa      300
tcaaaaactc ctgaagagtt ctaattctgt tgacaaatta tcagatttat cttctgaaag      360
gaacactctg acagtcttgt ggaaaagaaa ttggaaatgc t                          401

```

```

<210> 276
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 45
<223> /replace="t"

```

```

<400> 276
ttggacacat tgcattgcat acatttatTT atcaagtcac tccacaagaa tgtactgatt      60
gtcttctgtg tgtcaggcat tgttgcaggc tctgggggatt cagcaatata taatttgatg      120
atcgaatttg atgtatcttc acaacatcca agaggaacta tcagataggc ctttggacat      180
atttggtctg gacctcagaa tgtaggtgtg aattctgagt tgcaactata catgtatgtg      240
tcatttgtgt gtaggtgaca attgaagctt ggggcaaaga tgagatgctc tgattcttag      300
attctaaggt gagatcaata aataagaaga aaaaaaggag tcattctctgg gactacacct      360
tgagaatctc aagttttaat ggatggccta ggaattactc a                          401

```

```

<210> 277
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 214
<223> /replace="t"

```

```

<400> 277
aactcaggat tttgctcact attagaactt agaggaggct ccagacacca gatgctatga      60
cagtaccaca gaaaagcatc aaataaatgg cttaaataaa ttatctgtca ctcaaggaaa      120
tactcttacc atctgcagag gtaagaactc ctggtctcac ctctgcatgt caaaaactcc      180
aaagagctac aagaagaaaa gcttgaaact catgttctcc caatgttcag tcttcttctc      240
aacacaaggc atatcagatt ggaagctgac ccctgtgtcc tgacaccatg gattctataa      300
acttgctgaa tgactgatgg agactgatgc catcttccta aaaaatgagc catttgggctc      360
cttagcagtg ggcaataaaa aggagagcta tctactgcat t                          401

```

Seq-Listing-P1425.TXT

<210> 278
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 273
 <223> /replace="g"

<400> 278
 aatccatttt gtctcttctg ctatttttga gactgctctg aaaatgtttt tcatggtttt 60
 gcatgactct tgggatcacg atttgcattt taaaaaaagg agtcatggaa aatattgcaa 120
 gatatgcatt tgggtggagag agaatgcttt tcagcttgaa gctatttggg ggtctgatga 180
 tctgatgatc tttctgttgt tggagctttg agcaggcaca tgctgtagag atgctcatgt 240
 gtcactgggg agctggtttc tgatgctgact ggaacttata gatatttgat aagtcattct 300
 ttccttctga tactgccgtc aattcagtga attgaatata tacagagtct atggtaggag 360
 agcaaaagat caaaaggccc actatgttac ctccccacac t 401

<210> 279
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 292
 <223> /replace="t"

<220>
 <221> variation
 <222> 356
 <223> /replace="t"

<220>
 <221> variation
 <222> 361
 <223> /replace="t"

<400> 279
 ggaaatgccc ttgaagctga ggctggaagg acacggagga gctgcccaga gggaacagcc 60
 agtgctattt catgatggga cagagcatgg caggatagag caagagaaag aggccagtgt 120
 ggctggagcg taatgcaaga aagagagtgt gacaagggtgc agctgagcag gtgggagggg 180
 tggcatcaaa cggggcctag gattttacgat gtgacttgca gaacaatagg aagcaccaaa 240
 gattgaaagc ctagtagtga catgagttta tgatgtttta ggattcttcc acctgcaatt 300
 caagggtgat tgggggggtca gatggggcaa tagtgggtga gattttaatt aggaagctcc 360
 ggtaaccag ccaataagga tggcagcatt agctatggga t 401

<210> 280
 <211> 401
 <212> DNA
 <213> homo sapiens

Seq-Listing-P1425.TXT

```

<400> 280
tggaaagtaa ataggagagg agaaactcaa tggcacattht tcttctcttht caaacacatg      60
ttctttattta ataaattctc tctcaaataa aataagcctg tagttattgg tggtcagtht      120
catgtaatag gagctactac agthtttccca ttaaaaaaat aatacaagac tgcaataaag      180
catatagtga gtcacttht tgggtacgaa gtaataaacc agtggttaca atgataacgt      240
ctatgatgtg tcttagaaga aacaaccttg attgtthtgt ttggtthtggg gtggggcttht      300
ttggtthtagt ggcacagaaa accaatatgg gatcagaccc cacccttcaa atcagtgtht      360
ttatagcaac tggaaaattht cactctcagc aatgatcaca a                                401

```

```

<210> 281
<211> 401
<212> DNA
<213> homo sapiens

```

```

<400> 281
agaggggttaa gthttacaagc atcctatctt catagcactc aataatagat atggcttht      60
tgtgtgggtca catccattca tctaggctgg tgatataaat tagtgggtcaa agcattcgct      120
ttggaatcat acaagcctta atthtaaatta tagccccacc acttaagaga taggagacct      180
tgggaattca tgtatgttht tcgagactta atthtccttac ctgcaaaaatt aggataataa      240
tattaatagt tacattataa aattgtgaag attaactgat atatataata agcttagcac      300
aatgtctgac acagagcata agctcaagaa atgatagctg atgttactac thtttagaggt      360
ccatgtccat aaaaccttht atagagaaat tggaagtagg a                                401

```

```

<210> 282
<211> 401
<212> DNA
<213> homo sapiens

```

```

<220>
<221> variation
<222> 41
<223> /replace="t"

```

```

<220>
<221> variation
<222> 231
<223> /replace="g"

```

```

<400> 282
ttaactgtgc cagagaagga aatgtacctg caattgctca ctggggtaat atttaagtca      60
aggctggatt tcaagctcaa thtaagtgt acattthtgat thttthtaag aagaaagatt      120
tgctgtgtaa aatgtactt thcttatata agatctataa acatgcttht acaaccttht      180
aaattgatta aaagtgggtt tatatttht aatggagatg ccttgagtca agatgagtaa      240
gctaagaaaa tctattcatt ttagatatat thtaactctc ctactgtgc attgaaatta      300
tcaataattht ccagthttht thtgtthtata thttggcacc atthttattcc cctccccctca      360
aaaaaaaaact ccaaacacta aggtgaaatg taagcaaata g                                401

```

Seq-Listing-P1425.TXT

<210> 283
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 76
 <223> /replace="g"

<220>
 <221> variation
 <222> 296
 <223> /replace="g"

<400> 283
 gtaagcaa at agtactggaa atttttataaa ttttatacat agcaatcaga agttttataaa 60
 gtagatcatt ctgaaagcag attatgttaa tcagtcaaac tattttaaag caggagtgcc 120
 aatgtggggg taaactcaac tctttcgaag agctcatttg ttaacacatt tatcgatatt 180
 cccagttgcc atctccttaa tcttttgctc actcggagga aaattcctaa tagcaagata 240
 cacatgaaga cagcagaaca tttacaagaa agtcagccag acatgtggca gccaaagtct 300
 gtcaaagtgt agagaatttt ttgtatgtgg caaaatacac ataacataaa attgaccatt 360
 ttaaccattc ttaaattgtac agttaagtgg cattaagcac a 401

<210> 284
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 357
 <223> /replace="c"

<220>
 <221> variation
 <222> 371
 <223> /replace="t"

<400> 284
 ttggtgagtt ttcccatctt tcctctttcca acaaccttat tcagaagaag ctgtagctac 60
 ctgttttttg cagaggccag agagtttgag caccttttca ccagctcacc aactcaatgg 120
 tggacttttag caaagcatta tctaatttta gtaccacact gcttaccac tatactataa 180
 actacaaaaa gcagaacagc gtagcatttt tgcataaatg gtggatcaac agaccagaac 240
 tggggagccct ggaatgaatg tgtgttagag gaaccattgc ctgtcaagga atatgatatt 300
 attcaaagat gacttaccta tttggaaaaa taaaacaaag cattctcata ttatatgaca 360
 tattaataa cattccacct ggattaagga gttatcgaaa a 401

<210> 285
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>

Seq-Listing-P1425.TXT

<221> variation
 <222> 36
 <223> /replace="g"

<220>
 <221> variation
 <222> 37
 <223> /replace="t"

<220>
 <221> variation
 <222> 188
 <223> /replace="g"

<220>
 <221> variation
 <222> 283
 <223> /replace="g"

<220>
 <221> variation
 <222> 293
 <223> /replace="g"

<400> 285
 aacgggatgg tatttctcaaa cttttctgtg cataaagggtt atggagagct tttaaataatc 60
 cccatggcct ggacacatcc aagaccaata aatcgcaatc tcagttattc aaatttgcag 120
 gtaatttcaa tgggtggtag ccaagtttga gattaaagta aagaagcaag gttctgtaaa 180
 cttttcaagt gatcccatct tgcaaacgag gaaaactgca atctgctttt tcacagccat 240
 cgtgtgtttc agcaattgca aaatattctc agactatctc taagagtccc taagactctg 300
 gtcacatcac ctctgcagc aagttgacgg aaggccacta tacttgggtga cttttctctc 360
 atgcattcac tttcacctcc tagagctttc ttttggaccc a 401

<210> 286
 <211> 401
 <212> DNA
 <213> homo sapiens

<220>
 <221> variation
 <222> 199
 <223> /replace="g"

<400> 286
 ggtagcatgg gttatctatg ttattattat acctcttcaa gcctgtctta aaaccgcccc 60
 atccaggaag ttccagggtta ggaaagcgtc ttctttttaa actaagcctt tgggcttaag 120
 atattgtcga gatctgcgaa ctgtgagtaa tggctcattc ttctccatgt gtatcttgat 180
 tttttgacac aggcttcaaa tcctacctaa actgcagacc aatctctgaa agcaactttg 240
 ttcaattgca gcctgactag gtaaggcttt gagaatttgt ttctgtttta aatcctacag 300
 gataaaagag gtggaggggtg gtctataata ggatgaagtg gtatataata agtatttaac 360
 ttaaaagaaa atctaccatt taaaactgta actagattat t 401

<210> 287
 <211> 401

Seq-Listing-P1425.TXT

<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 248
<223> /replace="g"

<400> 287
tattcttttt ccctttgtta tgtttcttcc atttccaagt ggatgaagct ctaactcaac 60
ctttcatttg tttcaagagg gaggtatcag aaccacaaca aatggaatga aacctaccac 120
taccacctgc ctggcacaaa gaaataattt acaattcacg gggaatttcc tgtgtttcat 180
tttgtctgaa gaactgtaac tggacttgaa tgaactaagt gtctaattgt tgcattatct 240
ttcttgtaga gatttttagtg ttttattact ttctccagtt tacttcaata gtgaattagg 300
ttccctctac catctgaaat gttacagttc gataaaatag gtaaattaat aaagtctaaa 360
gtgcttccaa gctgagcaga gacctttctg tgcgctgtgc t 401

<210> 288
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 9
<223> /replace="g"

<220>
<221> variation
<222> 217
<223> /replace="t"

<220>
<221> variation
<222> 324
<223> /replace="c"

<400> 288
tttttaccat aactattttt attagggttcc taagtataaa gatcaggaca aagacaggtt 60
cattatgcta gtttagacatt ttcctaaagt atgataaaat aaatgaaaag gaaaacaata 120
cctgtttatc tgagatagaa gaagtgttta caagttgtta tgctgcattc tagttgtgct 180
aggggtttaca gggatctata tgtgtgttta tgctcacggg atgtacacca aaaagaagtc 240
aattttactg tatgttaatt acaaaaagaa agctattaaa tcttctcaa atcctagaaa 300
aatataagta cacattattt cccacacaaa ctcttgtaga gggtaacaa aactcatctg 360
gctttatttc atgcaagact tagaaaggct aatagtacgg a 401

<210> 289
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 185

Seq-Listing-P1425.txt

<223> /replace="t"

<220>

<221> variation

<222> 308

<223> /replace="c"

<400> 289

```

ttttattagg ttcctaagtg ataagatcag gacaaagaca ggttcattat gctagttaga      60
cattttccta aagtatgata aaataaatga aaaggaaaac aatacctgtt tatctgagat      120
agaagaagtg tttaacaagtt gttatgctgc attctagttg tgctaggggt tacagggatc      180
tatacgtgtg tttatgctca tgggatgtac accaaaaaga agtcaatfff actgtatgtt      240
aattacaaaa agaaagctat taaatcttcc tcaaatccta gaaaaatata agtacacatt      300
atttcccaca caaactcttg tgaaggggta acaaaactca tctggcttta tttcatgcaa      360
gacttagaaa ggctaatagt acggaactgc agatcaaacc a                          401

```

<210> 290

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 281

<223> /replace="g"

<400> 290

```

cctccctcaa aatacttgca tctggaatff ggctcctfff ctccctgctt aaatgggtata      60
gtgcagggtga taactgctga gataaacctt tatagttaga aagagtctaa atgttggtgt      120
ctgtaagcac aataagtaaa tgagtttggt ttttccttcc aaaataactg aacgttcact      180
ttaaataataa tgttagccag ttttgaatcc agaataffta catcttgtag actgtgtctt      240
gcagcctctg aatcaactga ctgggagcat ccgtctctgc atgcagggtt gctgaaaggt      300
gggagcagag ataaaagaca ggagatggga agaaacaaag ggagccaaga gatttcatag      360
aatgctgcaa gagacattct tttgatctat ttggactcct c                          401

```

<210> 291

<211> 401

<212> DNA

<213> homo sapiens

<220>

<221> variation

<222> 291

<223> /replace="t"

<400> 291

```

ttgaaaagat agtgtaaaaa ttgtaccaca atctggcagc tcccaaatta ttgttgataa      60
gccaatffta gacttgtcta catatcaaaa gttatfffff tctcaggga aagaagagcg      120
tgcatgtgca aacgcctgcc actcaacaac cgtaagacta tgagagggcg ggactcactg      180
gaaggcagag agcctffftta tttctcttfc tctgacctat gatgcttagc catgtgcttg      240

```

Seq-Listing-P1425.TXT

ttattagtg acaatcaaca aatattttct gaattaaaac ccagatttga atttttgaaa 300
cataagattt attttattaa aataagaaaa tatacctagc catatacctc cccaaattga 360
aaaaaggat tcagacaaag acttatacac aatattcata g 401

<210> 292
<211> 401
<212> DNA
<213> homo sapiens

<220>
<221> variation
<222> 38
<223> /replace="t"

<400> 292
ccaaggtcct gaggtaacag atgtcccat taactcagcc aggaggggct gaaaggcaca 60
tcagactaaa gagagagaga gaggtaaaag gtcctagctc ctcaaactga gtgccagtgg 120
atagtgttgc acagagtggg aagagggctc atggcaggag ccaaaccctg gtgtcccacg 180
ggatgtgtgt cttgagacaa tatggccagc cccacccctc ccctcatccc tcagtgaaaa 240
tgacatccaa gtgggacagc ccagtgccat ggcagcaaga cagctggagc tggaagcaca 300
gaggggtgga gagatctctg tgggctggtg gtggggccag ggctggtggt ggggctgctg 360
gtctatgtgg tcacccccag gcacctgttg tgccatggga t 401

<210> 293
<211> 440
<212> PRT
<213> homo sapiens

<400> 293

Met Glu Gln Thr Tyr Gly Glu Val Asn Gln Leu Gly Gly Val Phe Val
1 5 10 15

Asn Gly Arg Pro Leu Pro Asn Ala Ile Arg Leu Arg Ile Val Glu Leu
20 25 30

Ala Gln Leu Gly Ile Arg Pro Cys Asp Ile Ser Arg Gln Leu Arg Val
35 40 45

Ser His Gly Cys Val Ser Lys Ile Leu Ala Arg Tyr Asn Glu Thr Gly
50 55 60

Ser Ile Leu Pro Gly Ala Ile Gly Gly Ser Lys Pro Arg Val Thr Thr
65 70 75 80

Pro Asn Val Val Lys His Ile Arg Asp Tyr Lys Gln Gly Asp Pro Gly
85 90 95

Ile Phe Ala Trp Glu Ile Arg Asp Arg Leu Leu Ala Asp Gly Val Cys
100 105 110

Seq-Listing-P1425.TXT

Asp Lys Tyr Asn Val Pro Ser Val Ser Ser Ile Ser Arg Ile Leu Arg
 115 120 125
 Asn Lys Ile Gly Ser Leu Ala Gln Pro Gly Pro Tyr Glu Ala Ser Lys
 130 135 140
 Gln Pro Pro Ser Gln Pro Thr Leu Pro Tyr Asn His Ile Tyr Gln Tyr
 145 150 155 160
 Pro Tyr Pro Ser Pro Val Ser Pro Thr Gly Ala Lys Met Gly Ser His
 165 170 175
 Pro Gly Val Pro Gly Thr Ala Gly His Val Ser Ile Pro Arg Ser Trp
 180 185 190
 Pro Ser Ala His Ser Val Ser Asn Ile Leu Gly Ile Arg Thr Phe Met
 195 200 205
 Glu Gln Thr Gly Ala Leu Ala Gly Ser Glu Gly Thr Ala Tyr Ser Pro
 210 215 220
 Lys Met Glu Asp Trp Ala Gly Val Asn Arg Thr Ala Phe Pro Ala Thr
 225 230 235 240
 Pro Ala Val Asn Gly Leu Glu Lys Pro Ala Leu Glu Ala Asp Ile Lys
 245 250 255
 Tyr Thr Gln Ser Ala Ser Thr Leu Ser Ala Val Gly Gly Phe Leu Pro
 260 265 270
 Ala Cys Ala Tyr Pro Ala Ser Asn Gln His Gly Val Tyr Ser Ala Pro
 275 280 285
 Gly Gly Gly Tyr Leu Ala Pro Gly Pro Pro Trp Pro Pro Ala Gln Gly
 290 295 300
 Pro Pro Leu Ala Pro Pro Gly Ala Gly Val Ala Val His Gly Gly Glu
 305 310 315 320
 Leu Ala Ala Ala Met Thr Phe Lys His Pro Ser Arg Glu Gly Ser Leu
 325 330 335
 Pro Ala Pro Ala Ala Arg Pro Arg Thr Pro Ser Val Ala Tyr Thr Asp
 340 345 350
 Cys Pro Ser Arg Pro Arg Pro Pro Arg Gly Ser Ser Pro Arg Thr Arg
 355 360 365
 Ala Arg Arg Glu Arg Gln Ala Asp Pro Gly Ala Gln Val Cys Ala Ala
 370 375 380

Seq-Listing-P1425.TXT

Ala Pro Ala Ile Gly Thr Gly Arg Ile Gly Gly Leu Ala Glu Glu Glu
385 390 395 400

Ala Ser Ala Gly Pro Arg Gly Ala Arg Pro Ala Ser Pro Gln Ala Gln
405 410 415

Pro Cys Leu Trp Pro Asp Pro Pro His Phe Leu Tyr Trp Ser Gly Phe
420 425 430

Leu Gly Phe Ser Glu Leu Gly Phe
435 440

<210> 294
<211> 2838
<212> DNA
<213> homo sapiens

<400> 294
aaattgattc ccgcacgctg cagcctcccc gtcagacgaa tttctcccaa tcggatgaag 60
ttcaccctgg gcctggggtc gcgggcgtgg agagtgtcct gggagggggc agcagcggcg 120
gcggcaggcc ctggagcggg cggcagcgcg ctccgctgcc gcgcacagcg cgtctccagc 180
ccgcggctgg gccgccgcgg ctctcggctc tcgggcgccc tccctctatg cctctcacgc 240
ggcggcgggc gcgcccgaag tctcccgga cgcgccgggc ccagccccgg ccaccccggc 300
caccgccggc ccaggcagct ggccggcccc ctcgctatgg agcagacgta tggcgaggtg 360
aaccagctgg gcggtgtgtt cgtcaacggc cgccccctgc ccaacgccat ccgcttgccg 420
attgtggagc tggcgagct gggcatccga ccctgtgaca tcagtcggca gctccgcgta 480
tcccacggct gcgtgagcaa gatcctggcg cgctacaacg agaccggctc cattctgccc 540
ggggccatcg gggggagcaa gccccgcgtc accactccca acgtgggtcaa gcacatccgg 600
gactacaagc aaggagaccc tggcatcttt gcctggggaga tccgcgaccg gctgctggcc 660
gacggcgtct gtgacaagta caatgtgcct tcggtgagct ccatcagccg catcctgcgc 720
aacaagatcg gcagcctggc gcagcccga ccgtacgagg caagtaagca gccgccgtcg 780
cagcctacgc tgccctacaa ccacatctac cagtaccct accccagtcc cgtgtcgccc 840
acgggcgcca agatgggcag ccaccccggt gtcccgggca cggcgggcca cgtcagcatc 900
ccgcgctcat ggccctcggc acactcggtc agcaacatcc tgggcatccg gacgtttatg 960
gagcaaacag gggccctggc tgggagcgaa ggcaccgctt actctcccaa gatggaagac 1020
tgggcccggc tgaaccgcac ggccttcccc gccacccccg cagtgaatgg gctagagaaa 1080
cctgccttag aggcagacat taaatacact cagtcggcct ccaccctctc tgccgtgggc 1140
ggctttctcc ccgcctgcgc ctacccggcc tccaaccagc acggcgtgta cagcgccccg 1200
ggcggcggtt acctcgcccc gggcccggcg tggccgcctg cgcaagggtc tcctctggcg 1260
ccccccgggg ccggcgtagc tgtgcatggc ggggaactcg cggcagcaat gaccttcaag 1320
catcccagcc gagaaggaag cctcccagct ccggcagcaa ggccccggac gccctcagta 1380

Seq-Listing-P1425.TXT

gcttacacgg	actgcccata	ccggcctcga	cctcctaggg	gcagctctcc	ccggacccga	1440
gcccggaggg	aacggcaggc	ggacccgggc	gcacaggtct	gcgcggcggc	cccggcaatc	1500
ggcacgggca	ggatcggagg	actcgcggag	gaggaagcca	gtgccggccc	gcgggggtga	1560
cgcccagcca	gccccaggc	ccagccctgc	ctctggccgg	accaccaca	cttcctttat	1620
tggtctgggt	ttttaggctt	ctctgaactt	gggttttaga	ctgccgtacc	ctcctcacia	1680
tccttgctct	gacgtggcct	ccttcgctct	gccagcttca	aatttctttt	ttgtcactcc	1740
cttgctcgtc	tccgtctcgc	ctctctccct	gtttccttcc	cccctctttc	tttctcactc	1800
tcctctccct	ccctttctct	ttcccttcct	ccctaccttc	caccccggtc	ttccccgacc	1860
ttccagggct	ccctctgccc	ttccactctc	ttttccttgc	tccgacctct	gctccagtcc	1920
cgtttcttcc	cccgtctcct	ctttctagtc	ctctatatgc	tatcagccct	ttttcctggt	1980
ccatccctgt	cgttccttct	ctctctgtct	ctggttctac	tgtcaagggc	cctagtcccc	2040
tttgttttac	tgcttcccca	accctccctc	agtccttgag	agccctagag	ccatctcggt	2100
gacagtccct	tctctggcac	ctgggacttt	gtagccttca	ctcctctgag	cccaccagcc	2160
ctaattggagg	ggggctcaaa	cctaggaagt	ggacagaaaa	gccacagcct	ttattttgta	2220
ttttttttgt	aataacaaac	cctaaaaaac	cctccatgaa	ctgtcctctc	ccgtcgatcc	2280
ccgcagcata	ttgtctggaa	atctgttttc	tttctcagag	cccagtggcc	gccgggcttc	2340
tcttcccttc	tgagatgatg	tcaccccaaa	gaagactggg	gtaggagtag	ggagcacagg	2400
ggttggttgt	gttttcagtg	cttagaaaac	tgggttgtcc	tgcagggtgc	tcctcccacc	2460
cctccactcg	caacacttgc	tagggaatcc	gaccagtggg	aaacacatca	gcactttttg	2520
gtgttcaggg	gtcagcacat	ttgttaattt	aaaccacaga	ctgcttccag	gtacaaaggt	2580
tcatttggtg	ttctggtttg	caagggatga	gggttaaaaa	aaaacaaaaca	aaacaaacaa	2640
caacaacaac	aaaaacaacc	cagaaagtat	cttctagagc	cagccgcaag	agctgtgagc	2700
tgcttccaag	ttaggcgagc	tgggtggtgt	accctggaca	taatgcaatt	ctgtagtcag	2760
agcaatatcc	ctggcgagag	cctgacatcg	cctgttaaag	gtggctgcct	ctgaataaag	2820
gaaagcgtct	gaaagggtg					2838