Gene: WIPF1 - Sequence: NG_032009.1
Date : January 8, 2015

Exon 1 | Start: 1 | End: 126 | Length: 125

tcccttccagttcccgcccctctgcaaactcctgtcctcttgcctcggtcccctcgccg

cgcaggggagcgggactgaggaaactgcggactccagccccgaccatcccgccccgccgc

gatcctctgcgggccgaagctgcaggcgcagagccccattgctggcggggcaggcgggcg

cgcggagggcagggcgcgggccggcggggcctcgcggcgcgtccacatgtggcggggcgg

cggggggcggcggcgccggaggggagggcccacatctcggcgaagttcccggatggtcg

```
    |-159      |-149      |-139      |-129      |-119      |-109
GCAGCCTCCCGGCGCTGAGCGCTTTTCCTGCCCGCCCGGCTCAGCCCTGCGGACCCCGGG

    |-99       |-89       |-79       |-69       |-59       |-49
AGAAGTTTCCCAGAAAAAATGCCCAGCGCGGCGCGGGGCTGCGGAGTCGTCCGGAGCCGC

    |-39
TGCGCGgtaagggacgcgtcgcctctggcgcgacccgggttccgggctcccggggggccgg
```

gggagacgccgggaggggctgggctcgacggcggggcacggaagtgccgcctggcaccgg

tgacgcgggtggggcggctggggacgtcgaggccgcgtcccctgcgagcggtgggcgcgg

gcgcgcggcctcgggaggggcgcaattccaggccagcggcccgcgcgttctgctgcccgc

tgatggcccgggggaggaaggggccgtggacagcctgggtcccgcgcctcgggctgagctc

accgct

Exon 2 | Start: 127 | End: 215 | Length: 88

accttcctgcttaactgggcccacctgggtcggtcatggcctactgtagtgggtggggga

atggagccgagtaaggcactggatgtggcctccattctctccaagcacctcgggtcagaa

gccctctgccgggatccttccagaacagtaatgttttagcagtgaggtgtaaaggtaag

```
cccatctcttctaagagttgagctaggtggagctgtcactttggtgggaaagtgaagaca

gattaggacagtattactaagattacatctaatacatgatcgcattcttgtttttccaga

        |-29       |-19       |-9        |1         |11        |21
ATTTATCAGCAAGACTGTTGAACGCATAACTGCCCAAGATGCCTGTCCCTCCCCCTCCAG
                                        M  P  V  P  P  P  P  A
                                        |1

        |31       |41       |51
CACCCCCGCCGCCCCCGACGTTTGCACTGgtgagtgtctcctcccccaaacactttctatg
 P  P  P  P  P  T  F  A  L  A
        |11

cataaagcaagccaaatgaagccaaaacctggcgtgcatgtgtttgtattaaatgtgttt

gcattctggctcacatgtgatacaacaggctttcccagtgcccagggtaagccaaatcct

gaaacccagcaaatacaaacaacacgaagggttttgtttgtttaaggtctcgtgtgatgg

atagtacaagggtggaatgtggctgatgaggtgttttctgccgcatctgcgcagggacat

gtgctggcccaagatagggtttgcaggat


Exon 3 | Start: 216 | End: 345 | Length: 129


catctcaccctaacctggccctgttagtttcagtcagattgtggtctgaattttcagaga

ctttaatcaaggactgactcttcctcccttaaaaatgaacataatttattgctgcatctg

cttccaaacgtctggatcttaaaaagaaagatatggggtctaaaacttgtcgagaattta

caacctatcaccaagaaccttaacaacaagcttcccgtacccaacctttcccagccgagt

gttacaatgcatgattttaacccaagagatgactacttgtttgtatggctccctttcagg

        |61        |71        |81        |91        |101       |111
GCCAATACAGAGAAGCCTACCTTGAATAAGACAGAGCAGGCTGGGAGAAATGCTCTCCTT
  N  T  E  K  P  T  L  N  K  T  E  Q  A  G  R  N  A  L  L  S
        |21                             |31

        |121       |131       |141       |151       |161       |171
```

2

```
TCTGATATCAGCAAAGGGAAGAAACTAAAGAAGACGGTCACCAATGACAGAAGTGCACCA
  D   I   S   K   G   K   K   L   K   K   T   V   T   N   D   R   S   A   P   I
      |41                                      |51

         |181
ATACTGGACAgtaagtaaaaaaaggctatctaccatggagaggaacagtttatggcctaa
  L   D   K
         |61

taatcaaccctaccctcaccactcaattttttattttattttatttttttggttaacaacag

ctgcaaagctagcaaaataagggactgtatcactccctgtaggccgcagctttggcttgg

gttcccctctaatgctgcaagaagccagtataataattctttgtccaagacatacacagc

agcaattctctgcattattcacaacactttctggagattaacccattgctcctggcacca

cagatgagga


Exon 4 | Start: 346 | End: 522 | Length: 176


ttgccaaatcttaggatacggaacaaacagatactgacccatgtggcagccagtcaagtg

gggagtgtggggacaaatcatcctttattttcgtttcttccaccactgggcttgggactg

cctggagcgggcagttctgactgagctgagggaactcttaaaatcctgcattttaatgaa

gaaatcccagttgtccactggaggccgagagccggccagctccctgttgtactgttgttt

tatggtttacctgggccagaccaggggcatagtctgtcgggtgtctcttcttctacaga
        |191       |201       |211       |221       |231       |241
AACCTAAAGGAGCTGGTGCTGGAGGCGGTGGTGGTGGCTTTGGTGGAGGCGGCGGATTTG
  P   K   G   A   G   A   G   G   G   G   G   F   G   G   G   G   F   G
                              |71                                      |81

        |251       |261       |271       |281       |291       |301
GCGGAGGAGGTGGTGGCGGAGGCGGTGGAAGTTTTGGAGGGGGCGGACCTCCAGGTCTGG
  G   G   G   G   G   G   G   G   S   F   G   G   G   G   P   P   G   L   G
                              |91                                      |101

        |311       |321       |331       |341       |351
GAGGATTGTTCCAGGCTGGAATGCCGAAGCTGAGATCCACGGCCAACAGGGATAATGgta
```

3

```
  G   L   F   Q   A   G   M   P   K   L   R   S   T   A   N   R   D   N   D
                              |111
```

aggagagtttccctgtctctgagtgactgaagacaaggcagagtttggcagtttggaggc

tggtcatagcctctaaggctcttcgcccttattaaaatattgtacattgtttaaatatt

accactgttttataagagactcaatttaggctttattattattattaaccaggatcagac

agctacacagaactatgaaattttcacccagtgtctttgggggtaacctgtacattttttt

ttttttttactttttctaaagggttagctggagtgggaagaaaagggaggagcaaatag

Exon 5 | Start: 523 | End: 1293 | Length: 770

caccagaactctcgcccacttcatcctggctcttgcctatacataatgctaagagatatt

tgcagaatccttttgaaagctcataggctgtagaagttgggactcgcaggtaaatagagc

tatggtcgattttctgctcccaagaaggaccaacaaaacccaatttatataaataatagt

ttcctgtattttatagccctctgaggaagggacttccagtcactgggaacagactctagc

tctctgatttcttcagggttcctgatttcctaactgatgtttgttttcctgttcttcaga

```
 |361      |371      |381      |391      |401      |411
ATTCTGGAGGAAGCCGACCACCATTGTTGCCACCGGGAGGAAGATCCACATCTGCGAAAC
  S   G   G   S   R   P   P   L   L   P   P   G   G   R   S   T   S   A   K   P
 |121                              |131

 |421      |431      |441      |451      |461      |471
CCTTTTTCACCCCCAAGTGGCCCAGGGAGGTTTCCTGTGCCTTCTCCAGGCCACAGAAGTG
  F   S   P   P   S   G   P   G   R   F   P   V   P   S   P   G   H   R   S   G
 |141                              |151

 |481      |491      |501      |511      |521      |531
GTCCCCCAGAGCCTCAGAGGAACCGAATGCCGCCCCCAAGGCCCGACGTGGGCTCAAAGC
  P   P   E   P   Q   R   N   R   M   P   P   P   R   P   D   V   G   S   K   P
 |161                              |171

 |541      |551      |561      |571      |581      |591
CTGATAGCATTCCTCCTCCAGTACCTAGTACTCCAAGACCCATTCAATCAAGTCCGCACA
  D   S   I   P   P   P   V   P   S   T   P   R   P   I   Q   S   S   P   H   N
```

4

```
                |181                             |191

    |601         |611         |621         |631         |641         |651
ACCGGGGGGTCCCCACCAGTGCCCGGAGGCCCCAGGCAGCCCAGCCCCGGGCCCACTCCTC
 R   G   S   P   P   V   P   G   G   P   R   Q   P   S   P   G   P   T   P   P
    |201                             |211

    |661         |671         |681         |691         |701         |711
CCCCTTTCCCTGGAAACCGCGGCACTGCTTTGGGAGGAGGCTCAATACGTCAGTCCCCCT
 P   F   P   G   N   R   G   T   A   L   G   G   G   S   I   R   Q   S   P   L
    |221                             |231

    |721         |731         |741         |751         |761         |771
TGAGCTCCTCCTCGCCCTTCTCCAACCGGCCTCCCCTGCCGCCTACCCCCAGCAGGGCCT
 S   S   S   S   P   F   S   N   R   P   P   L   P   P   T   P   S   R   A   L
    |241                             |251

    |781         |791         |801         |811         |821         |831
TGGATGACAAACCCCCTCCACCACCTCCTCCAGTGGGCAACAGGCCCTCCATCCACAGGG
 D   D   K   P   P   P   P   P   P   P   V   G   N   R   P   S   I   H   R   E
    |261                             |271

    |841         |851         |861         |871         |881         |891
AAGCGGTTCCCCCTCCTCCTCCTCAGAACAACAAGCCTCCAGTGCCTTCCACTCCGCGGC
 A   V   P   P   P   P   P   Q   N   N   K   P   P   V   P   S   T   P   R   P
    |281                             |291

    |901         |911         |921         |931         |941         |951
CTTCGGCCTCCTCACAGGCCCCACCTCCGCCGCCACCTCCCAGCAGGCCCGGGCCGCCTC
 S   A   S   S   Q   A   P   P   P   P   P   P   P   S   R   P   G   P   P   P
    |301                             |311

    |961         |971         |981         |991         |1001        |1011
CTCTGCCTCCAAGTTCCAGCGGCAATGACGAAACCCCAAGACTCCCACAGCGGAATCTGT
 L   P   P   S   S   S   G   N   D   E   T   P   R   L   P   Q   R   N   L   S
    |321                             |331

    |1021       |1031        |1041        |1051        |1061        |1071
CCCTCAGTTCGTCCACGCCCCCGTTACCTTCGCCAGGACGTTCAGGTCCTCTTCCTCCCC
 L   S   S   S   T   P   P   L   P   S   P   G   R   S   G   P   L   P   P   P
    |341                             |351

    |1081       |1091        |1101        |1111        |1121
CGCCCAGTGAGAGACCCCCACCTCCAGTGAGGGACCCGCCAGGCCGATCAGgtatgacaa
 P   S   E   R   P   P   P   P   V   R   D   P   P   G   R   S   G
    |361                             |371
```

5

gacgtggagtgagttgcttccaaaacccagcctgcccaaatgtaccaataatcctgtcag

tcaagatagtctaacaaaagcaggcataagtaaactcagactgctttgtgcttttaagtg

gcacacgacacgtgtgatcgtgacctcgtgtaaaccccggggggaaagtgggaccaatatt

tctgttggtgtttttagagatgaggacactgagtagctaataaagttaaatggtcacgagc

tagttaataaagaagaggcaagaactttcatcttccatctctgaagtgtac

Exon 6 | Start: 1294 | End: 1506 | Length: 212

cgtgtaaacagattttcacctgttttcaatttcactgtgccatctccaatctgagtgcta

attcaaagccaaaacacccatttagctatcagtatgcacttgttttgcatatacatgtgt

acacatgtgcaattttttgtgtttctgtgtgtttactcatttctcagccaaatatcctaga

aaatcaccctaattaaagggcatgtgtccagcaagtcctcatcagctgtacaccaatggt

gaccacggtaatggaatgtggatgtaaggttctgcactaagtgtctttttttgctccagg

```
|1131     |1141     |1151     |1161     |1171     |1181
GCCCCCTCCCACCACCTCCTCCAGTAAGCAGAAACGGCAGCACATCTCGGGCCCTGCCTG
 P  L  P  P  P  P  P  V  S  R  N  G  S  T  S  R  A  L  P  A
         |381                          |391

|1191     |1201     |1211     |1221     |1231     |1241
CTACCCCTCAGTTGCCATCCAGGAGTGGAGTAGACAGTCCCAGGAGTGGACCCAGGCCTC
 T  P  Q  L  P  S  R  S  G  V  D  S  P  R  S  G  P  R  P  P
         |401                          |411

|1251     |1261     |1271     |1281     |1291     |1301
CCCTTCCTCCTGATAGGCCCAGTGCTGGGGCACCTCCCCCACCTCCACCATCAACATCTA
 L  P  P  D  R  P  S  A  G  A  P  P  P  P  P  P  S  T  S  I
         |421                          |431

|1311     |1321     |1331     |1341
TTAGAAATGGCTTCCAAGACTCTCCATGTGAAGgtgaggtgtggtcccagctccctgggc
 R  N  G  F  Q  D  S  P  C  E  D
         |441
```

tatagggcagcaactaaatggtaaatctgtttgtatatgtggtttgcttgtttgcgttta

atttcttgttccatcattatcacactccattgcactgatctaactatctaaccattctaa

ggcccaccatgatttcaaattaaaaatagtaatcccccttcccacttcccaaaaaggcg

gatcattttccctgatctgttctttgtttgggtctcattttagttaactttccagagat

tccaggattctgaaaagaatctttttatagctt

Exon 7 | Start: 1507 | End: 1620 | Length: 113

ccattgttatcaatggggaaaaaggtgtcccataccttagcccccagctcctaagaggga

ctggctggatcctaatcactctcactaaaaccactttgctttgatttgcaggcctgtata

tatgtcagtgtactaattcgtgacctttgtagcacttccagctttttctgtaaacttctag

gcataaaaactagcactgatgtctgtggttctctctctcttttcattctgtgcctttcgtt

acgtaagtcttcatagcacattgtctgtcactgaagatactgcttgtttctcttcccaga

```
         |1351      |1361      |1371      |1381      |1391      |1401
ATGAGTGGGAAAGCAGATTCTACTTCCATCCGATTTCCGATTTGCCACCTCCAGAGCCAT
 E  W  E  S  R  F  Y  F  H  P  I  S  D  L  P  P  P  E  P  Y
         |451                           |461

         |1411      |1421      |1431      |1441      |1451
ATGTACAAACGACCAAAAGTTATCCCAGCAAACTGGCAAGAAACGAAAGCCGGAgtgagt
 V  Q  T  T  K  S  Y  P  S  K  L  A  R  N  E  S  R  S
         |471                           |481
```

atttctgccaaggtttttgaagattcacgcttgagtagcctgagtgacactcgggctata

tagaaagtccaggcttcttgcctggagtggggtagagaacccctttggagccatctacatt

ctagtaaattccccttccacaggcagtgaggaaattgcagatgcccagaatgcatatgag

aaacagttattttaatgtgtcattacaagctcaaaataccgtggtttgctagtattaaat

tttattattttacttctttggacgtcttcctctgttttcatcttcctgagacag

Exon 8 | Start: 1621 | End: 4649 | Length: 3028

ttactcatccatattttctaaatctataataagcacacactgtgataagaagaaaatgat

tttttttaactttgtgcaagtacttgggagccagtgatggatcacccaccatgatgttta

ttcagaacattacttgcttgttttcacctctcacttctcatccacaacatacgccagtta

gctgacagccctggtcatagggatgaggtagtgggtacccgtgcaaccatccccgagttt

ccacgatgagaacatcagctttctaaccaaaattatattttgtctgttttttcaccaagg

```
   |1461     |1471     |1481     |1491     |1501     |+1
GTGGATCCAACCGAAGAGAAAGGGGTGCTCCACCACTCCCTCCCATCCCGAGGTGATCTT
 G  S  N  R  R  E  R  G  A  P  P  L  P  P  I  P  R  *
             |491                              |501

   |+11      |+21      |+31      |+41      |+51      |+61
TGCCTGCTCTTCTCTACCCAAGCTCAAGAGCTGCTTCTGTTGCTATCTAAGAACTGCATA

   |+71      |+81      |+91      |+101     |+111     |+121
CCCTCCTCCCTGCTTCTTCCCTTGTGCCTCATGTATGGGCAGGAGGAAAGGTGGGAGGGG

   |+131     |+141     |+151     |+161     |+171     |+181
GAGTGGGAATATGCGTGTGTGGGTGGGAATCGGTAAGAAATGCACCTAGCTTTTCATATT

   |+191     |+201     |+211     |+221     |+231     |+241
GTGTTTATTCTCCAGGCTATTGCTTGCTTCAGCTGCAGCCTGCCTGTGCTGGCTGCTGGG

   |+251     |+261     |+271     |+281     |+291     |+301
GTCGATAGGCTTTTGTCGTAATAGGCAGAGATGACTTGCATCCCAGCTTTCCACCAACCA

   |+311     |+321     |+331     |+341     |+351     |+361
AATTCAAACATTCACTGCTTATTTGTTACAGACTGTAATTATTAAAGTCCCTGAGAGCTG

   |+371     |+381     |+391     |+401     |+411     |+421
TTTTCTCCCGTTCCTTTTTCGCATGCTTGGCCTCCTCTCTGTTTCTATGAACCACAGACC

   |+431     |+441     |+451     |+461     |+471     |+481
ACCTAAGCAAGCTGCTGAGTAAGGGCTCACTGGAAACTTGCAGTCACAGGATGTCCAATC

   |+491     |+501     |+511     |+521     |+531     |+541
TTTGGCAGTCCGAGCTTGGCTCTAGGACAGAGCTGTCCAATAGAAATATAATGTGAGCCC
```

```
 |+551      |+561      |+571      |+581      |+591      |+601
CATATACAATTTTTACATTTCTAATATATTTTAAACAAGTGAAGTTAATATGCATCCAAA

 |+611      |+621      |+631      |+641      |+651      |+661
ATATTTCAACCTGTAATCAACATAAAATTTTAATGAGATATTTTATATTATTTTTTGGTA

 |+671      |+681      |+691      |+701      |+711      |+721
CTGAATCTTCAAAATCCAGAGTGTATTTTACACTTACCGCACATCTCCATTCAGACTAGT

 |+731      |+741      |+751      |+761      |+771      |+781
CACATTTTTAAGTGCTCAGTAGCCACATGTGGCTGGTGGCTACTGGATTAGACAGCACGA

 |+791      |+801      |+811      |+821      |+831      |+841
GTCTGGAAGATGGAAGCTAGTGCAGAAACCTCTTGTTTAAAAAAACAAAAAAGGCAAGATG

 |+851      |+861      |+871      |+881      |+891      |+901
GGCTTGAGCGATTCAAGAGGCAACTAAAAATAAAATTAGGACCCAGCACCTTGTTTGACA

 |+911      |+921      |+931      |+941      |+951      |+961
CACAGTTTGACCTTCGATTTTCCTCCCTTAACTTCCCTCTTCCCTTAATATCTGTATACA

 |+971      |+981      |+991      |+1001     |+1011     |+1021
AGTGTTGCTTCAAAGTACCAAGGTCAGAAATTGATTCAGTACGGTTTACTAAAGTCATGT

 |+1031     |+1041     |+1051     |+1061     |+1071     |+1081
GGAATAAAGCCATTGGAAACAAATGGAAAGCCTGTCGGGACTTCTGGGCTCAGAACCAGC

 |+1091     |+1101     |+1111     |+1121     |+1131     |+1141
TGGCTCACGCACTCCACTTGTCAGCTGGACTTCTGCCTTGTGAAATGGAAGCAGCCTTTG

 |+1151     |+1161     |+1171     |+1181     |+1191     |+1201
TTCCTTTCTGGCTGAGCAAGCTCCTGAGGCTGGGAGAGACTAGGAAGGCTTGGTAGGAGG

 |+1211     |+1221     |+1231     |+1241     |+1251     |+1261
GGAAAAAAGTCAGGAAAAGATATCAAATCAGAAACATGGAAGAAGAAGGGAACCGATTTG

 |+1271     |+1281     |+1291     |+1301     |+1311     |+1321
AGTTGGTGGGCAAAACTCTAAAAATCTAAATCTGATGCTTATGTAAGGGTTGAGCGAATT

 |+1331     |+1341     |+1351     |+1361     |+1371     |+1381
AGGGAGATTGCTAGTGGAAATTGGAGGGAATTTGTTTTGCATCATTTGTCTAGGATCTAT

 |+1391     |+1401     |+1411     |+1421     |+1431     |+1441
GCAAATATAGCTCCACTAAAGGACCATAGGGAAGAGCCAGCCTTGCCTTTTCTTATATGA

 |+1451     |+1461     |+1471     |+1481     |+1491     |+1501
```

```
TTTTGTTTACAAAATTTTACTGGGACTTTTAAATCTAGCTATAGAGTTGGGAAAAAATAT

   |+1511    |+1521    |+1531    |+1541    |+1551    |+1561
TTCCACTTAGATATTTTACATGGTTTTGTTTAAAATTACCATTACTTGTTTTTTAAAAAC

   |+1571    |+1581    |+1591    |+1601    |+1611    |+1621
ACATGACCACATATGTATATGTATATCTACCTAAACATTGTATCATGGTTTCAGTATGTT

   |+1631    |+1641    |+1651    |+1661    |+1671    |+1681
ATTCATGTATTACTGGGAGATGCTACCAAGAAACCAACCCAAAGAAAATTCTGAAAAATA

   |+1691    |+1701    |+1711    |+1721    |+1731    |+1741
CATTTCTATTTATAGAATAAATGTTTCATTTATATAAAAGCAAAAGAACTTAGAGTTCTA

   |+1751    |+1761    |+1771    |+1781    |+1791    |+1801
ATAAATGGGATGTCTAATAAATTATGAAGTTACTGATTTGAATATATTATATTTTTATAA

   |+1811    |+1821    |+1831    |+1841    |+1851    |+1861
CTTCCTTGCCAAAGTCCTGATTTAGTACATTAGAGAACCTGTGTTTCCTCTCTCCTCTAC

   |+1871    |+1881    |+1891    |+1901    |+1911    |+1921
CATTCATCTCTCTTCCATACAGTCATTTGGGCTTTTTACTCAAAGAGAATCAAGAAATAA

   |+1931    |+1941    |+1951    |+1961    |+1971    |+1981
TAAGGTATAACAAGCTTGGCAAAGTGTTGGCTTTTTAAAAAAAAAATTTTTTTAATCTCTA

   |+1991    |+2001    |+2011    |+2021    |+2031    |+2041
GCAGTTTGGTAATTTAGCAGCATCATTTATTTGGGATTCTTTTATCTGATTTCAACAGTG

   |+2051    |+2061    |+2071    |+2081    |+2091    |+2101
AAAAACATCCCTATGATAAAGCCTAATGACCCATTTCACAAAAGATGGAATTTGCCCTTC

   |+2111    |+2121    |+2131    |+2141    |+2151    |+2161
CTAGAAAATATGACGGAGAAAAGTCTGACTCAGAGAAAGTGAGTCTGAATTTTATAAGGG

   |+2171    |+2181    |+2191    |+2201    |+2211    |+2221
GTAGTAAGAATTGGACAATTCCTTTGCATATCTGAACTTGGCAGGTACCGTTCTAAATCT

   |+2231    |+2241    |+2251    |+2261    |+2271    |+2281
GAAACAGGGTGATAGCTCAAAGTTGCCATTCATCCAGAATAGATTGTTTTAGAATGTAGT

   |+2291    |+2301    |+2311    |+2321    |+2331    |+2341
GTTTAAGTGACTGTTTCATTAATACACCTACACCCTTTCTTTGAAAGTTTGCAACCTAAT

   |+2351    |+2361    |+2371    |+2381    |+2391    |+2401
TGCATCTAAAACTATGAATAAGTTCTGTGGTAAAATCTTAAACTATGGAAAATTACAAAA
```

10

```
   |+2411     |+2421     |+2431     |+2441     |+2451     |+2461
ATGAATTTTTCTTCCCTGAAATCAGAGCTTACATGTGTGTTTTTTTATAACATTTTCAGA

   |+2471     |+2481     |+2491     |+2501     |+2511     |+2521
TAAATGTATTCAACATGTAATACAGTATTTTAACATTCACCTCTTATTTTATATTGAAAT

   |+2531     |+2541     |+2551     |+2561     |+2571     |+2581
GTATTACAGTATTAAAACTCAGTGTTCAGTATTTATTTCACTATGCATTTTATTTAGTAA

   |+2591     |+2601     |+2611     |+2621     |+2631     |+2641
AAGCCAGGAGAAATGTTTAATCCAATGGTGCCTTACTTTGTGATTTAAAAGAAATCAACT

   |+2651     |+2661     |+2671     |+2681     |+2691     |+2701
TTTTTTTATGTCTAAGTAGTAGATTATTTGCATATTTGTAAAAACTGTTAGGTCTTTATA

   |+2711     |+2721     |+2731     |+2741     |+2751     |+2761
TTTTAAAGTGTAATACCAGTTTTGTTATTTTAGTAGCAGAAATGGGATGATTGTTAAAGT

   |+2771     |+2781     |+2791     |+2801     |+2811     |+2821
TCCCCAAAAATGTTGGCATGAAATTAATTTTTCCCTCCTTATAGTCAAGGACCGTAGAGG

   |+2831     |+2841     |+2851     |+2861     |+2871     |+2881
AAGAAAAACTTTTTTTTCATACCATGCACTATGTAAACAGACACATTTTGCTATCTGTGT

   |+2891     |+2901     |+2911     |+2921     |+2931     |+2941
CATCAGGATAGTGTAAGTGGTAGGGTAGAGACTACCCTAGACATCTGCATCTTTGTAAGT

   |+2951     |+2961     |+2971
TAGCCAGACAATAAAGAAAAGCAGAATGAtatggtgtcaactggtggttttttcttttaag

tattgtttatgtaaatataaacaaaaaaacaagtgtctgttttcggttttaaactgtgga

aaagaaagacaaacaaaaaaaggtttgtataagtaagtaaatattcattgtacctacttg

ctaatcccatcttcgttttttccgagaatctgcatcttagtcaaaatctgtttacttgag

gcagatgtttgtactaggaggtaaagatggatggctgaagcaatggaagatgaaattaca

aagactggcatggatactgataaatacag
```