Gene: RUNX1 - Sequence: NG_011402.2
Transcript: NM_001754.4 - Protein: NP_001745.2
Date : February 23, 2015

1^{st} line: Base numbering. Full stops for intronic +/- 5, 10, 15...
2^{nd} line: Base sequence. lower case Introns, upper case Exons
3^{rd} line: Amino acid sequence. Printed on MIDDLE base of codon
4^{th} line: Amino acid numbering. Numbered on 1^{st} and increments of 10

```
Exon 1 | Start: 940414 | End: 940544 | Length: 130
BE AWARE: This intron is shared with the following exon

.    .    .    .    .    .    .    .    .    .    .    .
atcagtagttccaaaaaccacaaataacaacaggagccgagttgtactaaatcagcaaag

.    .    .    .    .    .    .    .    .    .    .    .
accattgagatataataagtgactgagtcacttttttctacatccccccctcttgcaaag

.    .    .    .    .    .    .    .    .    .    .    .
tctactcggctattttcttgcacagcctgggggagggcaggtggagggaaggaagggcat

.    .    .    .    .    .    .    .    .    .    .    .
tgctcagaaaagaaaaaaaaaaaattgacatcacttaagtcacatgattggcaagaaccaa

.    .    .    .    .    .    .    .    .    .    .    .
ttgagatgggctgtggaaaggggaacagttaaatttgtaatttgggttgtgtgaaaactt

 |-189     |-179     |-169     |-159     |-149     |-139
CTTTGGGCCTCATAAACAACCACAGAACCACAAGTTGGGTAGCCTGGCAGTGTCAGAAGT

 |-129     |-119     |-109     |-99      |-89      |-79
CTGAACCCAGCATAGTGGTCAGCAGGCAGGACGAATCACACTGAATGCAAACCACAGGGT

 |-69          .    .    .    .    .    .    .    .    .
TTCGCAGCGTGgtgagcatcaccaacccacagccaaggcggcgctggctttttttttttt

.    .    .    .    .    .    .    .    .    .    .
tttaatctttaacaatttgaatatttgtttttacaaaggtgcatttttttaatagg


Exon 2 | Start: 940754 | End: 940870 | Length: 116
BE AWARE: This intron is shared with the previous exon
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```
.    .    .    .    .    .    .    .    .    .    .    .
gcttggggagtcccagaggtatccagcagaggggagaagaaagagagatgtagggctaga

.    .    .    .    .    .    .    .    .    |-59      |-49
ggggtgaggctgaaacagtgacctgtcttggttttcgctccgaagGTAAAAGAAATCATT

     |-39      |-29      |-19      |-9      |1        |11
GAGTCCCCCGCCTTCAGAAGAGGGTGCATTTTCAGGAGGAAGCGATGGCTTCAGACAGCA
                                           M  A  S  D  S  I
                                           |1

    |21       |31       |41       |51         .    .    .
TATTTGAGTCATTTCCTTCGTACCCACAGTGCTTCATGAGAGgtgagtacatgctggtct
  F  E  S  F  P  S  Y  P  Q  C  F  M  R  E
              |11

 .    .    .    .    .    .    .    .    .    .    .    .
tgtaatatctacttttgctcagctttgcctgtaatgaaatggcagcttgtttcacctcgg

 .    .    .    .    .    .    .    .    .    .    .    .
tgcagagatgcctcggtgcctgccagttccctgtcttgtttgtgagaggaattcaaactg

 .    .    .    .    .    .    .    .    .    .    .    .
aggcatatgattacaagtctattggattacttactaatcagatggaagctcttcagaaat

 .    .    .    .    .    .    .    .    .    .    .    .
gttttaataaatacttagttatgctgttggagtgttcagtcggtgcgtgagaactttgtc

 .    .    .    .    .    .    .    .    .
aagtgcgagtaagttgtgctggtcttgtttaaaggcttagag
```

Exon 3 | Start: 1096749 | End: 1096787 | Length: 38

```
.    .    .    .    .    .    .    .    .    .    .    .
cattaaataaatcacattttaatcacacacggagcttaaaagaggtgattctatgacaga

.    .    .    .    .    .    .    .    .    .    .    .
tattcagtattagctagtgaaggagaacattggttgaaggtacctaaaaccacgtgcata

.    .    .    .    .    .    .    .    .    .    .    .
aggaacagtttatttcttatttggtgatttactatttcaagtcatttttgtgtcaaagct

.    .    .    .    .    .    .    .    .    .    .    .
ataaaaatctccagtgctaaaaagtgtaagaagaaatgagctagcaaaaaaaaaaaagtc
```

```
.    .    .    .    .    .    .    .    .    .    .    .
gggggaaagttaatttttaaacttgcattacttttatttttcctactttctgttatttcag

  |61       |71       |81       |91       .    .    .    .
AATGCATACTTGGAATGAATCCTTCTAGAGACGTCCACGgtatgttaaattccaagttat
  C   I   L   G   M   N   P   S   R   D   V   H   D
  |21                             |31

   .    .    .    .    .    .    .    .    .    .    .    .
atttttaaataaagtacacaccttcatagatgtgtatatgattttatatctatgtatctc

   .    .    .    .    .    .    .    .    .    .    .    .
tatgtataacttgtgatataatttaaccaaataattaaggctgtttctgctgattccaat

   .    .    .    .    .    .    .    .    .    .    .    .
atacttaaaagcagttctccatattgtaaatgttataccatataaaatatttcaatgaaa

   .    .    .    .    .    .    .    .    .    .    .    .
gcttaaatgataccctcagttctacagcgtttaccataggtgcattctgatgctattaaa

   .    .    .    .    .    .    .    .
tgcctctatacaactctctaaaaacaaaacagagcttgg


Exon 4 | Start: 1102616 | End: 1102869 | Length: 253

.    .    .    .    .    .    .    .    .    .    .    .
tggaagatagtctccacttttaatgcactaagcaatcggttgctaggagcccatcctgg

.    .    .    .    .    .    .    .    .    .    .    .
gtcagaggccgatccgcagaaccagaacgttttcccctcctggactgttagtaacttagt

.    .    .    .    .    .    .    .    .    .    .    .
ctccctcctcccctaaccacccccgccccccccccacccccgcagtaataaaggcccctg

.    .    .    .    .    .    .    .    .    .    .    .
aacgtgtatgttggtctcccgggagctgcttgctgaagatccgcgcccctgtcgccgtct

.    .    .    .    .    .    .    .    .    .    .    .
ggtaggagctgtttgcagggtcctaactcaatcggcttgttgtgatgcgtatccccgtag

   |101      |111      |121      |131      |141      |151
ATGCCAGCACGAGCCGCCGCTTCACGCCGCCTTCCACCGCGCTGAGCCCAGGCAAGATGA
  A   S   T   S   R   R   F   T   P   P   S   T   A   L   S   P   G   K   M   S
```

```
                        |41                             |51

   |161       |171       |181       |191       |201       |211
GCGAGGCGTTGCCGCTGGGCGCCCCGGACGCCGGCGCTGCCCTGGCCGGCAAGCTGAGGA
  E  A  L  P  L  G  A  P  D  A  G  A  A  L  A  G  K  L  R  S
                        |61                             |71

   |221       |231       |241       |251       |261       |271
GCGGCGACCGCAGCATGGTGGAGGTGCTGGCCGACCACCCGGGCGAGCTGGTGCGCACCG
  G  D  R  S  M  V  E  V  L  A  D  H  P  G  E  L  V  R  T  D
                        |81                             |91

   |281       |291       |301       |311       |321       |331
ACAGCCCCAACTTCCTCTGCTCCGTGCTGCCTACGCACTGGCGCTGCAACAAGACCCTGC
  S  P  N  F  L  C  S  V  L  P  T  H  W  R  C  N  K  T  L  P
                        |101                            |111

   |341       |351 .     .     .     .     .     .     .     .
CCATCGCTTTCAAGgtactggcccggagagggtggtgggaggacaggcggaggccggcga
  I  A  F  K

   .     .     .     .     .     .     .     .     .     .     .     .
ggccgggggagatccgcgagggcagcggccaggcgggcggggccggattctggaaagggg

   .     .     .     .     .     .     .     .     .     .     .     .
cccccgcagccccgggtcggtcttcctagcttgggatgtgggggatgctgtgttgccgtg

   .     .     .     .     .     .     .     .     .     .     .     .
gcgaccctcgggaggcactcgtctcagctttctggggcggcctcccaggagggctgaaaa

   .     .     .     .     .     .     .     .     .     .     .     .
catcagggtgtccccaaagatatccactgggagccggtcgggacctccctggcaggggcc

   .     .     .
ttagctttgatata


Exon 5 | Start: 1108999 | End: 1109155 | Length: 156

.     .     .     .     .     .     .     .     .     .     .     .
tgaaaatttacatatagttatacataatgtattaggttggtgcaaatgtaactgcagttt

.     .     .     .     .     .     .     .     .     .     .     .
ttggagttaaaaattgcaaacactgcaattacttttgcaccaacctaaaatataataaaa
```

```
.    .    .    .    .    .    .    .    .    .    .    .
aagtgtcttctctttataacttttctgttgttttgcttaagttatcattgctattcctct

.    .    .    .    .    .    .    .    .    .    .    .
gcaacctaaaaagaaatcattgaatatacatttaattttagaataatcactacacaaatg

.    .    .    .    .    .    .    .    .    .    .    .
ccctaaaagtgtatgtataacatccctgatgtctgcatttgtcctttgactggtgtttag

         |361      |371      |381      |391      |401      |411
GTGGTGGCCCTAGGGGATGTTCCAGATGGCACTCTGGTCACTGTGATGGCTGGCAATGAT
V  V  A  L  G  D  V  P  D  G  T  L  V  T  V  M  A  G  N  D
         |121                        |131

         |421      |431      |441      |451      |461      |471
GAAAACTACTCGGCTGAGCTGAGAAATGCTACCGCAGCCATGAAGAACCAGGTTGCAAGA
E  N  Y  S  A  E  L  R  N  A  T  A  A  M  K  N  Q  V  A  R
         |141                        |151

         |481      |491      |501       .    .    .    .
TTTAATGACCTCAGGTTTGTCGGTCGAAGTGGAAGAGgtacgttatctgtcaaaactatg
F  N  D  L  R  F  V  G  R  S  G  R  G
         |161

 .    .    .    .    .    .    .    .    .    .    .    .
cttgaaacacgtttcatggcaacaaacccacatttcaaaattctagtgatttctgtgatg

 .    .    .    .    .    .    .    .    .    .    .    .
gaatccctagaaactcggtctgtcttaacattcttattgctatgtcaagctcttaaaaat

 .    .    .    .    .    .    .    .    .    .    .    .
atttatttgaagtttaatatttttagcagaatctctatattattgctttatgttactgag

 .    .    .    .    .    .    .    .    .    .    .    .
tggatttaagactgatttggaacatgcaacgtaggaattgtgaatttcaaagaaacgcct

 .    .    .    .    .    .    .    .
gagatttttactaaaatgcaaaaaatataaaactgac


Exon 6 | Start: 1130134 | End: 1130238 | Length: 104

.    .    .    .    .    .    .    .    .    .    .    .
atctgactctatggtttccggaaatcctgacttaacagaaaataaattctaatctttctt
```

```
.    .    .    .    .    .    .    .    .    .    .    .
gatcttgtattgtttattgatgattacattaaagccatataactatgtgaagtgttacac

.    .    .    .    .    .    .    .    .    .    .    .
ttaggcaactatcataggtgtgtattccagaattgaagcaaagccaaaattccgggagtg

.    .    .    .    .    .    .    .    .    .    .    .
ttgtcaaaactggtaacttgtgctgaagggctggacagcataaattaatgattggttatt

.    .    .    .    .    .    .    .    .    .    .    .
caacagatatgttcaggccaccaacctcattctgttttgttctctatcgtgtccccacag

  |511      |521      |531      |541      |551      |561
GGAAAAGCTTCACTCTGACCATCACTGTCTTCACAAACCCACCGCAAGTCGCCACCTACC
  K  S  F  T  L  T  I  T  V  F  T  N  P  P  Q  V  A  T  Y  H
  |171                         |181

  |571      |581      |591      |601      |611   .    .    .
ACAGAGCCATCAAAATCACAGTGGATGGGCCCCGAGAACCTCGAAgtaagtgcatccact
  R  A  I  K  I  T  V  D  G  P  R  E  P  R  R
  |191                         |201

    .    .    .    .    .    .    .    .    .    .    .    .
tggggctggtacaccctccaggctggtacaccctccaggctggtatactcagggaccatg

    .    .    .    .    .    .    .    .    .    .    .    .
tctcagattccttgggttcaacctttcccccaggggggatgtcaggcccccgtaaagccaa

    .    .    .    .    .    .    .    .    .    .    .    .
aaagttgcattgtcaatactctcgctactcaaagcttgtttctgtgcactgagctctttt

    .    .    .    .    .    .    .    .    .    .    .    .
tgaagcatccttttagagggcaaaaggaaattaggctgactgaatcatatgttagaacca

    .    .    .    .    .    .    .    .    .
ttcagggcagcatgaaactaaggactgcttcctcaatatacagta
```

Exon 7 | Start: 1155111 | End: 1155302 | Length: 191

```
.    .    .    .    .    .    .    .    .    .    .    .
ttctgtatctcagtgagttgtgcccattggaagtgggtgtagagggttggggagggtgcc

.    .    .    .    .    .    .    .    .    .    .    .
```

```
aaggcccagactgggggagcactctgtggccgaggcggtgaaaggggcccattctgctg

.    .    .    .    .    .    .    .    .    .    .    .
agaggacagtggccccaaattcagctggcatatctctagcgagtctatgttggggtgagg

.    .    .    .    .    .    .    .    .    .    .    .
ggagagagaggggaaagacaagaaaagccccagttttaggaaatccacaatacttttct

.    .    .    .    .    .    .    .    .    .    .    .
gatctcttccctccctccttccctccccccatcccctcccctccctgctccccacaatag

       |621      |631      |641      |651      |661      |671
GACATCGGCAGAAACTAGATGATCAGACCAAGCCCGGGAGCTTGTCCTTTTCCGAGCGGC
  H  R  Q  K  L  D  D  Q  T  K  P  G  S  L  S  F  S  E  R  L
                |211                      |221

       |681      |691      |701      |711      |721      |731
TCAGTGAACTGGAGCAGCTGCGGCGCACAGCCATGAGGGTCAGCCCACACCACCCAGCCC
  S  E  L  E  Q  L  R  R  T  A  M  R  V  S  P  H  H  P  A  P
                |231                      |241

       |741      |751      |761      |771      |781      |791
CCACGCCCAACCCTCGTGCCTCCCTGAACCACTCCACTGCCTTTAACCCTCAGCCTCAGA
  T  P  N  P  R  A  S  L  N  H  S  T  A  F  N  P  Q  P  Q  S
                |251                      |261

       |801     .    .    .    .    .    .    .    .
GTCAGATGCAGGgtaagtaccagatggagcccactgcccgcctctcctgcacctgggcca
  Q  M  Q  D


 .    .    .    .    .    .    .    .    .    .    .    .
ccacccacaactggcccccatgtgcacacaccttcccagaccaactggggtttccccttg

 .    .    .    .    .    .    .    .    .    .    .    .
atgctcagagaaaggcctcgaaccaacagcaccacctgggagctgttggaaatgcagagt

 .    .    .    .    .    .    .    .    .    .    .    .
cttgggccccacccaccccagacccaccgagtcagatctgcattgtaaccagatccccac

 .    .    .    .    .    .    .    .    .    .    .    .
aaggaaaagcactgctacagaggatacgaggagctctgggtatggatatccatattggat

 .    .    .
agatagctctct
```

```
Exon 8 | Start: 1190250 | End: 1190411 | Length: 161

.    .    .    .    .    .    .    .    .    .    .    .
gacattaatacttctaccttgaaagtgtaatccattcctctcatcattgttagcatgatt

.    .    .    .    .    .    .    .    .    .    .    .
aaataaaaccttggaaggaatagttatcaggtgaaaatctccaagaatcagtctctttt

.    .    .    .    .    .    .    .    .    .    .    .
gggggaaaataatccaacagaggcagatacttggacttgagtaggcttattaaaccctgg

.    .    .    .    .    .    .    .    .    .    .    .
tacataggccacatacatgtatgtgacatatttgaacaagggccactcatttcttattaa

.    .    .    .    .    .    .    .    .    .    .    .
aagacatttttaaatcccaccccactttacatataattgacctttctgattctcttcag

     |811      |821      |831      |841      |851      |861
ATACAAGGCAGATCCAACCATCCCCACCGTGGTCCTACGATCAGTCCTACCAATACCTGG
  T  R  Q  I  Q  P  S  P  P  W  S  Y  D  Q  S  Y  Q  Y  L  G
     |271                        |281

     |871      |881      |891      |901      |911      |921
GATCCATTGCCTCTCCTTCTGTGCACCCAGCAACGCCCATTTCACCTGGACGTGCCAGCG
  S  I  A  S  P  S  V  H  P  A  T  P  I  S  P  G  R  A  S  G
     |291                        |301

     |931      |941      |951      |961       .    .    .
GCATGACAACCCTCTCTGCAGAACTTTCCAGTCGACTCTCAAgtaagccacttgaaaaca
  M  T  T  L  S  A  E  L  S  S  R  L  S  T
     |311                        |321

 .    .    .    .    .    .    .    .    .    .    .    .
cattctttgcagctgagctggggtggaaggtccaggagactagaggtgcatgaaggagtt

 .    .    .    .    .    .    .    .    .    .    .    .
ggcagaacattattgagtaaaacatggtttaaaggtgacctatctctactctgagtccca

 .    .    .    .    .    .    .    .    .    .    .    .
tgcccatgcactgattttcttggatacataagaggcagagattgtggatgtgaaggcaga

 .    .    .    .    .    .    .    .    .    .    .    .
agtggcttggagaagtaggttccttagacatctaaagttgttcacatttggcaagaaagg
```

```
 .    .    .    .    .    .    .    .    .
atggtgactgaagggttaagaacaatataaaaagccaaagtt
```

Exon 9 | Start: 1197102 | End: 1201911 | Length: 4809

```
.    .    .    .    .    .    .    .    .    .    .    .
gcatagcatcatgggtagtccccatcctcttgggaggtgacatgctgggtgatcctcgtc

.    .    .    .    .    .    .    .    .    .    .    .
atctcaggaggtggcatcctgggtggtccctgtccccctgggtatagcatcctgggtaat

.    .    .    .    .    .    .    .    .    .    .    .
cctcgtcctcttgggagtagcatcccgggtggtccccgtcctccccagcagtagcatcct

.    .    .    .    .    .    .    .    .    .    .    .
gggtggcttcccatcctcctaggcggtatcatcctgggtagccccctggggcagagggaa

.    .    .    .    .    .    .    .    .    .    .    .
gagctgtggcctccgcaacctcctactcacttccgctccgttctcttgcccgccctgcag

   |971      |981      |991      |1001     |1011     |1021
CGGCACCCGACCTGACAGCGTTCAGCGACCCGCGCCAGTTCCCCGCGCTGCCCTCCATCT
  A  P  D  L  T  A  F  S  D  P  R  Q  F  P  A  L  P  S  I  S
                      |331                          |341

   |1031     |1041     |1051     |1061     |1071     |1081
CCGACCCCCGCATGCACTATCCAGGCGCCTTCACCTACTCCCCGACGCCGGTCACCTCGG
  D  P  R  M  H  Y  P  G  A  F  T  Y  S  P  T  P  V  T  S  G
                      |351                          |361

   |1091     |1101     |1111     |1121     |1131     |1141
GCATCGGCATCGGCATGTCGGCCATGGGCTCGGCCACGCGCTACCACACCTACCTGCCGC
  I  G  I  G  M  S  A  M  G  S  A  T  R  Y  H  T  Y  L  P  P
                      |371                          |381

   |1151     |1161     |1171     |1181     |1191     |1201
CGCCCTACCCCGGCTCGTCGCAAGCGCAGGGAGGCCCGTTCCAAGCCAGCTCGCCCTCCT
  P  Y  P  G  S  S  Q  A  Q  G  G  P  F  Q  A  S  S  P  S  Y
                      |391                          |401

   |1211     |1221     |1231     |1241     |1251     |1261
ACCACCTGTACTACGGCGCCTCGGCCGGCTCCTACCAGTTCTCCATGGTGGGCGGCGAGC
  H  L  Y  Y  G  A  S  A  G  S  Y  Q  F  S  M  V  G  G  E  R
                      |411                          |421
```

```
   |1271     |1281     |1291     |1301     |1311     |1321
GCTCGCCGCCGCGCATCCTGCCGCCCTGCACCAACGCCTCCACCGGCTCCGCGCTGCTCA
  S  P  P  R  I  L  P  P  C  T  N  A  S  T  G  S  A  L  L  N
                      |431                      |441

   |1331     |1341     |1351     |1361     |1371     |1381
ACCCCAGCCTCCCGAACCAGAGCGACGTGGTGGAGGCCGAGGGCAGCCACAGCAACTCCC
  P  S  L  P  N  Q  S  D  V  V  E  A  E  G  S  H  S  N  S  P
                      |451                      |461

   |1391     |1401     |1411     |1421     |1431     |1441
CCACCAACATGGCGCCCTCCGCGCGCCTGGAGGAGGCCGTGTGGAGGCCCTACTGAGGCG
  T  N  M  A  P  S  A  R  L  E  E  A  V  W  R  P  Y  *
                      |471                      |481

      |*11      |*21      |*31      |*41      |*51      |*61
CCAGGCCTGGCCCGGCTGGGCCCCGCGGGCCGCCGCCTTCGCCTCCGGGCGCGCGGGCCT

      |*71      |*81      |*91      |*101     |*111     |*121
CCTGTTCGCGACAAGCCCGCCGGGATCCCGGGCCCTGGGCCCGGCCACCGTCCTGGGGCC

      |*131     |*141     |*151     |*161     |*171     |*181
GAGGGCGCCCGACGGCCAGGATCTCGCTGTAGGTCAGGCCCGCGCAGCCTCCTGCGCCCA

      |*191     |*201     |*211     |*221     |*231     |*241
GAAGCCCACGCCGCCGCCGTCTGCTGGCGCCCCGGCCCTCGCGGAGGTGTCCGAGGCGAC

      |*251     |*261     |*271     |*281     |*291     |*301
GCACCTCGAGGGTGTCCGCCGGCCCCAGCACCCAGGGGACGCGCTGGAAAGCAAACAGGA

      |*311     |*321     |*331     |*341     |*351     |*361
AGATTCCCGGAGGGAAACTGTGAATGCTTCTGATTTAGCAATGCTGTGAATAAAAAGAAA

      |*371     |*381     |*391     |*401     |*411     |*421
GATTTTATACCCTTGACTTAACTTTTTAACCAAGTTGTTTATTCCAAAGAGTGTGGAATT

      |*431     |*441     |*451     |*461     |*471     |*481
TTGGTTGGGGTGGGGGGAGAGGAGGGATGCAACTCGCCCTGTTTGGCATCTAATTCTTAT

      |*491     |*501     |*511     |*521     |*531     |*541
TTTTAATTTTTCCGCACCTTATCAATTGCAAAATGCGTATTTGCATTTGGGTGGTTTTTA

      |*551     |*561     |*571     |*581     |*591     |*601
TTTTTATATACGTTTATATAAATATATATAAATTGAGCTTGCTTCTTTCTTGCTTTGACC
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      |*611      |*621      |*631      |*641      |*651      |*661
ATGGAAAGAAATATGATTCCCTTTTCTTTAAGTTTTATTTAACTTTTCTTTTGGACTTTT

      |*671      |*681      |*691      |*701      |*711      |*721
GGGTAGTTGTTTTTTTTTTGTTTTGTTTTGTTTTTTTTGAGAAACAGCTACAGCTTTGGGTC

      |*731      |*741      |*751      |*761      |*771      |*781
ATTTTTAACTACTGTATTCCCACAAGGAATCCCCAGATATTTATGTATCTTGATGTTCAG

      |*791      |*801      |*811      |*821      |*831      |*841
ACATTTATGTGTTGATAATTTTTTAATTATTTAAATGTACTTATATTAAGAAAAATATCA

      |*851      |*861      |*871      |*881      |*891      |*901
AGTACTACATTTTCTTTTGTTCTTGATAGTAGCCAAAGTTAAATGTATCACATTGAAGAA

      |*911      |*921      |*931      |*941      |*951      |*961
GGCTAGAAAAAAAGAATGAGTAATGTGATCGCTTGGTTATCCAGAAGTATTGTTTACATT

      |*971      |*981      |*991      |*1001     |*1011     |*1021
AAACTCCCTTTCATGTTAATCAAACAAGTGAGTAGCTCACGCAGCAACGTTTTTAATAGG

      |*1031     |*1041     |*1051     |*1061     |*1071     |*1081
ATTTTTAGACACTGAGGGTCACTCCAAGGATCAGAAGTATGGAATTTTCTGCCAGGCTCA

      |*1091     |*1101     |*1111     |*1121     |*1131     |*1141
ACAAGGGTCTCATATCTAACTTCCTCCTTAAAACAGAGAAGGTCAATCTAGTTCCAGAGG

      |*1151     |*1161     |*1171     |*1181     |*1191     |*1201
GTTGAGGCAGGTGCCAATAATTACATCTTTGGAGAGGATTTGATTTCTGCCCAGGGATTT

      |*1211     |*1221     |*1231     |*1241     |*1251     |*1261
GCTCACCCCAAGGTCATCTGATAATTTCACAGATGCTGTGTAACAGAACACAGCCAAAGT

      |*1271     |*1281     |*1291     |*1301     |*1311     |*1321
AAACTGTGTAGGGGAGCCACATTTACATAGGAACCAAATCAATGAATTTAGGGGTTACGA

      |*1331     |*1341     |*1351     |*1361     |*1371     |*1381
TTATAGCAATTTAAGGGCCCACCAGAAGCAGGCCTCGAGGAGTCAATTTGCCTCTGTGTG

      |*1391     |*1401     |*1411     |*1421     |*1431     |*1441
CCTCAGTGGAGACAAGTGGGAAAACATGGTCCCACCTGTGCGAGACCCCCTGTCCTGTGC

      |*1451     |*1461     |*1471     |*1481     |*1491     |*1501
TGCTCACTCAACAACATCTTTGTGTTGCTTTCACCAGGCTGAGACCCTACCCTATGGGGT

      |*1511     |*1521     |*1531     |*1541     |*1551     |*1561
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ATATGGGCTTTTACCTGTGCACCAGTGTGACAGGAAAGATTCATGTCACTACTGTCCGTG

      |*1571     |*1581     |*1591     |*1601     |*1611     |*1621
GCTACAATTCAAAGGTATCCAATGTCGCTGTAAATTTTATGGCACTATTTTTATTGGAGG

      |*1631     |*1641     |*1651     |*1661     |*1671     |*1681
ATTTGGTCAGAATGCAGTTGTTGTACAACTCATAAATACTAACTGCTGATTTTGACACAT

      |*1691     |*1701     |*1711     |*1721     |*1731     |*1741
GTGTGCTCCAAATGATCTGGTGGTTATTTAACGTACCTCTTAAAATTCGTTGAAACGATT

      |*1751     |*1761     |*1771     |*1781     |*1791     |*1801
TCAGGTCAACTCTGAAGAGTATTTGAAAGCAGGACTTCAGAACAGTGTTTGATTTTTATT

      |*1811     |*1821     |*1831     |*1841     |*1851     |*1861
TTATAAATTTAAGCATTCAAATTAGGCAAATCTTTGGCTGCAGGCAGCAAAAACAGCTGG

      |*1871     |*1881     |*1891     |*1901     |*1911     |*1921
ACTTATTTAAAACAACTTGTTTTTGAGTTTTCTTATATATATATTGATTATTTGTTTTAC

      |*1931     |*1941     |*1951     |*1961     |*1971     |*1981
ACACATGCAGTAGCACTTTGGTAAGAGTTAAAGAGTAAAGCAGCTTATGTTGTCAGGTCG

      |*1991     |*2001     |*2011     |*2021     |*2031     |*2041
TTCTTATCTAGAGAAGAGCTATAGCAGATCTCGGACAAACTCAGAATATATTCACTTTCA

      |*2051     |*2061     |*2071     |*2081     |*2091     |*2101
TTTTTGACAGGATTCCCTCCACAACTCAGTTTCATATATTATTCCGTATTACATTTTTGC

      |*2111     |*2121     |*2131     |*2141     |*2151     |*2161
AGCTAAATTACCATAAAATGTCAGCAAATGTAAAAATTTAATTTCTGAAAAGCACCATTA

      |*2171     |*2181     |*2191     |*2201     |*2211     |*2221
GCCCATTTCCCCCAAATTAAACGTAAATGTTTTTTTTTCAGCACATGTTACCATGTCTGAC

      |*2231     |*2241     |*2251     |*2261     |*2271     |*2281
CTGCAAAAATGCTGGAGAAAAATGAAGGAAAAAATTATGTTTTTCAGTTTAATTCTGTTA

      |*2291     |*2301     |*2311     |*2321     |*2331     |*2341
ACTGAAGATATTCCAACTCAAAACCAGCCTCATGCTCTGATTAGATAATCTTTTACATTG

      |*2351     |*2361     |*2371     |*2381     |*2391     |*2401
AACCTTTACTCTCAAAGCCATGTGTGGAGGGGGCTTGTCACTATTGTAGGCTCACTGGAT

      |*2411     |*2421     |*2431     |*2441     |*2451     |*2461
TGGTCATTTAGAGTTTCACAGACTCTTACCAGCATATATAGTATTTAATTGTTTCAAAAA
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      |*2471     |*2481     |*2491     |*2501     |*2511     |*2521
AAATCAAACTGTAGTTGTTTTGGCGATAGGTCTCACGCAACACATTTTTGTATGTGTGTG

      |*2531     |*2541     |*2551     |*2561     |*2571     |*2581
TGTGTGCGTGTGTGTGTGTGTGTGTGAAAAATTGCATTCATTGACTTCAGGTAGATTAAG

      |*2591     |*2601     |*2611     |*2621     |*2631     |*2641
GTATCTTTTTATTCATTGCCCTCAGGAAAGTTAAGGTATCAATGAGACCCTTAAGCCAAT

      |*2651     |*2661     |*2671     |*2681     |*2691     |*2701
CATGTAATAACTGCATGTGTCTGGTCCAGGAGAAGTATTGAATAAGCCATTTCTACTGCT

      |*2711     |*2721     |*2731     |*2741     |*2751     |*2761
TACTCATGTCCCTATTTATGATTTCAACATGGATACATATTTCAGTTCTTTCTTTTTCTC

      |*2771     |*2781     |*2791     |*2801     |*2811     |*2821
ACTATCTGAAAATACATTTCCCTCCCTCTCTTCCCCCCAATATCTCCCTTTTTTTCTCTC

      |*2831     |*2841     |*2851     |*2861     |*2871     |*2881
TTCCTCTATCTTCCAAACCCCACTTTCTCCCTCCTCCTTTTCCTGTGTTCTCTTAAGCAG

      |*2891     |*2901     |*2911     |*2921     |*2931     |*2941
ATAGCACATACCCCCACCCAGTACCAAATTTCAGAACACAAGAAGGTCCAGTTCTTCCCC

      |*2951     |*2961     |*2971     |*2981     |*2991     |*3001
CTTCACATAAAGGAACATGGTTTGTCAGCCTTTCTCCTGTTTATGGGTTTCTTCCAGCAG

      |*3011     |*3021     |*3031     |*3041     |*3051     |*3061
AACAGAGACATTGCCAACCATATTGGATCTGCTTGCTGTCCAAACCAGCAAACTTTCCTG

      |*3071     |*3081     |*3091     |*3101     |*3111     |*3121
GGCAAATCACAATCAGTGAGTAAATAGACAGCCTTTCTGCTGCCTTGGGTTTCTGTGCAG

      |*3131     |*3141     |*3151     |*3161     |*3171     |*3181
ATAAACAGAAATGCTCTGATTAGAAAGGAAATGAATGGTTCCACTCAAATGTCCTGCAAT

      |*3191     |*3201     |*3211     |*3221     |*3231     |*3241
TTAGGATTGCAGATTTCTGCCTTGAAATACCTGTTTCTTTGGGACATTCCGTCCTGATGA

      |*3251     |*3261     |*3271     |*3281     |*3291     |*3301
TTTTTATTTTTGTTGGTTTTTATTTTTGGGGGGAATGACATGTTTGGGTCTTTTATACAT

      |*3311     |*3321     |*3331     |*3341     |*3351     |*3361
GAAAATTTGTTTGACAATAATCTCACAAAACATATTTTACATCTGAACAAAATGCCTTTT
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      |*3371     |*3381     |*3391     |*3401     |*3411     |*3421
TGTTTACCGTAGCGTATACATTTGTTTTGGGATTTTTGTGTGTTTGTTGGGAATTTTGTT

      |*3431     |*3441     |*3451     |*3461     |*3471     |*3481
TTTAGCCAGGTCAGTATTGATGAGGCTGATCATTTGGCTCTTTTTTTCCTTCCAGAAGAG

      |*3491     |*3501     |*3511     |*3521     |*3531     |*3541
TTGCATCAACAAAGTTAATTGTATTTATGTATGTAAATAGATTTTAAGCTTCATTATAAA

      |*3551     |*3561     |*3571     |*3581     |*3591     |*3601
ATATTGTTAATGCCTATAACTTTTTTTCAATTTTTTTGTGTGTGTTTCTAAGGACTTTTT

      |*3611     |*3621     |*3631     |*3641     |*3651     |*3661
CTTAGGTTTGCTAAATACTGTAGGGAAAAAAATGCTTCTTTCTACTTTGTTTATTTTAGA

      |*3671     |*3681     |*3691     |*3701     |*3711     |*3721
CTTTAAAATGAGCTACTTCTTATTCACTTTTGTAAACAGCTAATAGCATGGTTCCAATTT

      |*3731     |*3741     |*3751     |*3761     |*3771     |*3781
TTTTTAAGTTCACTTTTTTTGTTCTAGGGGAAATGAATGTGCAAAAAAAGAAAAAGAACT

      |*3791     |*3801     |*3811     |*3821     |*3831     |*3841
GTTGGTTATTTGTGTTATTCTGGATGTATAAAAATCAATGGAAAAAAATAAACTTTCAAA

      |*3851     |*3861     |*3871     |*3881     |*3891     |*3901
TTGAAATGACGGTATAACACATCTACTGAAAAAGCAACGGGAAATGTGGTCCTATTTAAG

      |*3911     |*3921     |*3931     |*3941     |*3951     |*3961
CCAGCCCCCACCTAGGGTCTATTTGTGTGGCAGTTATTGGGTTTGGTCACAAAACATCCT

      |*3971     |*3981     |*3991     |*4001     |*4011     |*4021
GAAAATTCGTGCGTGGGCTTCTTTCTCCCTGGTACAAACGTATGGAATGCTTCTTAAAGG

      |*4031     |*4041     |*4051     |*4061     |*4071     |*4081
GGAACTGTCAAGCTGGTGTCTTCAGCCAGATGACATGAGAGAATATCCCAGAACCCTCTC

      |*4091     |*4101     |*4111     |*4121     |*4131     |*4141
TCCAAGGTGTTTCTAGATAGCACAGGAGAGCAGGCACTGCACTGTCCACAGTCCACGGTA

      |*4151     |*4161     |*4171     |*4181     |*4191     |*4201
CACAGTCGGGTGGGCCGCCTCCCCTCTCCTGGGAGCATTCGTCGTGCCCAGCCTGAGCAG

      |*4211     |*4221     |*4231     |*4241     |*4251     |*4261
GGCAGCTGGACTGCTGCTGTTCAGGAGCCACCAGAGCCTTCCTCTCTTTGTACCACAGTT

      |*4271     |*4281     |*4291     |*4301     |*4311     |*4321
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TCTTCTGTAAATCCAGTGTTACAATCAGTGTGAATGGCAAATAAACAGTTTGACAAGTAC

      |*4331  .    .    .    .    .    .    .    .    .
ATACACCATAtccaattggttttgtctttctctgagatggagggttgggaaactgagtaa

    .    .    .    .    .    .    .    .    .    .    .    .
ggcccactgcacacactaggaagatacctccagtgaacagcttcaggctgaagctatgtc

    .    .    .    .    .    .    .    .    .    .    .    .
ctcacccccggtgctcctagcacactctggcttctgaaggcatgagggcctggaaaaggc

    .    .    .    .    .    .    .    .    .    .    .    .
gcaggctcccagggttgcttctttgcatatgaaagagcactgaagcatgttttaatgctt

    .    .    .    .    .    .    .    .    .    .    .    .
gttttaaaaaaataataataggccggcgcggtggctcacgcctgtaatcccagcacgttgg

    .    .
gaggccgagg


LRG Parser: Version: 1.1, Version Date: 11/02/2015
Reader: Version: 1, Version Date: 11/02/2015
Writer: Version: 1, Version Date: 11/02/2015
Control: Version: 1, Version Date: 11/02/2015
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