

Gene: ENSG00000166147 - Sequence: ENST00000316623
 Transcript: ENST00000316623 - Protein: ENSP00000325527
 Date : February 25, 2015

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

Exon 1 | Start: 500 | End: 775 | Length: 275

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. . . . .
gtctccagcgcgcatctcttggtgcaggtggaacagctttctgctccggtagggttcacc

. . . . .
tatcgcgggagagggttaatctcggatctaaacctcgagccgagagcgggctaaaaccg

. . . . .
ctactccacctcttcccatttctccccctccccacctcaagacaaaaagtcccaggccggg

. . . . .
caggacctgatcacctctgcctcctccactgcgctaatacctgcgagcgagaggccccgc

. . . . .
accgaggcggaggctggcaaaggggagtggaaagggaggatggatggggccggggggtgg

      |-449      |-439      |-429      |-419      |-409      |-399
GTGGTGTATGAGGGCGACGAAGGAGGGGTGTCATTTTCTTTTCTTTCTTTTAAAAA

      |-389      |-379      |-369      |-359      |-349      |-339
AAGTATTTCTCTCGCGAGAAACCGCTGCGCGGACGATACTTGAAGAGGTGGGGAAAGGAG

      |-329      |-319      |-309      |-299      |-289      |-279
GGGGCTGCGGGAGCCGCGGCAGAGACTGTGGGTGCCACAAGCGGACAGGAGCCACAGCTG

      |-269      |-259      |-249      |-239      |-229      |-219
GGACAGCTGCGAGCGGAGCCGAGCAGTGGCTGTAGCGGCCACGACTGGGAGCAGCCGCCG

      |-209      |-199      |-189      . . . . .
CCGCCTCTCGGGAGTCGGAGCCGCGCTTCTCCAgtgggtgcagccggggtcccacgg

. . . . .
gggtcgggcggccaccggggctggagctgcggccacggaggcttttgcgtttgcgccgcg

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CACGAGCCATGGGGCGGACGCCAATTTGGAGGCTGGGAACGTGAAGGAAACCAGAGCCAG
T S H G A D A N L E A G N V K E T R A S
|21 |31

|121 |131 |141 |151 |161 . . .
TCGGGCCAAGAGAAGAGGCGGTGGAGGACACGACGCGCTTAAAGGgtaaaggaaccgggtt
R A K R R G G G G H D A L K G
|41 |51

.
ccctcctttggtgtgggtctcccaagtttcaagatccagaacaacgggcaggatgactct
.
ccctgtggaagactccttggcaagacctcctgggggcaccttagaggtgctagggttgtt
.
tagtccccaccccggtcgtggttaaactaccttgcccctactcccagagatttctgcccc
.
aaaggagaggacgtggttaaataaggaatcctgggccattgttgaggcagattttgggaggc
.
gagaagagttccttggggaagaaggggaggagttgagtgaggat

Exon 3 | Start: 33257 | End: 33340 | Length: 83

.
tgtctaatttaagacttgatggcttcatgaattgtgacagaatgtgctacattttgtat
.
ctctggtttttatttccctgatgggccatagcataggtgatattaagggatgtccctgt
.
tgatatcactatgtagtgtccaagctaccaaccagcattgagtcctcatgagtttgct
.
ttatctgtctgccaggattcatcttgcttttataactcaggaatttttttccttttatt
.
tggccatctcttcttcttcttttttaaaagtatggaattcttctgtttttgtttta

|171 |181 |191 |201 |211 |221
ACCCAATGTCTGTGGATCACGTTATAATGCTTACTGTTGCCCTGGATGGAAAAACCTTACC
P N V C G S R Y N A Y C C P G W K T L P

|61 |71
 |231 |241
 TGGCGGAAATCAGTGTATTGTCCgtaagtaaataaaaaacttgtcattctgcatgtcctt
 G G N Q C I V P
 |81

.
 cttttgttgtgttgggtgcatggggagccttagaatgtggccttttgtaactgtactatt

 aatctgttgatagtagccttccagctttaagacttttctacctttccagtttgggaaa

 tacatcaacttgggtcaaaccctgtcaaagtttagtcacggggatactttgcttgaggttg

 tgtcatttacatatgttgtgcctggctacacagactatctaattactttgatgggagttt

 gaatgaaagggtattattgctgc

Exon 4 | Start: 35523 | End: 35622 | Length: 99

.
 tttggttttctcttcatagcctgtcctgggcttctgatggattgagtgctgtggactaag

 caaagagagggttgagaaccaccgtgactggataaaggagttgtggattttaagccagag

 tttatttagttcaatagacttgttttgaaaatgagtacacctgaggcttaagggtcatata

 agtcatgatagcaaagtttgtgagggacctgagaaccaggtttcctcatttgaggattg

 gtcccctataacaaatcgtgttccaaatccatgtgctaacagacctctggtttattcaca
 |251 |261 |271 |281 |291 |301
 CCATTTGCCGGCATTCTGTGGGGATGGATTTTGTTCGAGGCCAAATATGTGCACTTGCC
 I C R H S C G D G F C S R P N M C T C P
 |91 |101

|311	|321	|331	|341	.	.	.	.
CATCTGGTCAGATAGCTCCTTCCTGTGGCTCCAGATCCAgttaagtctaacatgtcattat							
S	G	Q	I	A	P	S	C
						G	S
						R	S
						I	
		111					

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. . . . .
atataatattattttatgtggttatacccattttctcctaaatttgattttggcctttcc
. . . . .
tctttcctgcaatacatTTTTTcactagaacatctgccttctctgttctgccccaaatac
. . . . .
ttggaaaggctttcctcatctggcctctcattcccttctttactctttataggaaaat
. . . . .
tacctatggggcatagttagtactatgaatagtataaagcttatggccttttatgtaggtatc
. . . . .
gccttattcatctttgtatctccagtgtaaacaccataa

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Exon 5 | Start: 46115 | End: 46211 | Length: 96

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. . . . .
gacgggggtccaccatgttggccaggctggtctcaaactcctgacctcaggtgatccgcc
. . . . .
taccttggcctcccaaagtgttgggattacaggcatgagccactgcgcttagccggtaaa
. . . . .
tgattttacacacacaaataatatgttttagcattctcaattaggtcattatcaggtaaaa
. . . . .
atagatgaatcctgataagctatttgattttctcttcaaataactacaaatcaactcctg
. . . . .
tgagctgttgcaatctatgcatttaagttgcaaaagtgaattcttcttctttttttcaa

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351	361	371	381	391	401
TACAACACTGCAATATTCGCTGTATGAATGGAGGTAGCTGCAGTGACGATCACTGTCTAT					
Q	H	C	N	I	R
					C
					M
					N
					G
					G
					S
					C
					S
					D
					D
					H
					C
					L
					C
		|121		|131	

|411	|421	|431	|441	.	.	.	.
GCCAGAAAGGATACATAGGGACTCACTGTGGACAACgtaagtacactgtagttataagta							

Q K G Y I G T H C G Q P
|141

.
ttctagatgttaacctgtttgttagacaagtagaataaagagataagtgctgatgatttt
.
cttcgattacctgggacacagcatgtttacaagtgccagtgacctttacagatgaacaa
.
atcacttactcaaaaaacttaacaccaaatttccaattggaaccttgattggttacaggt
.
tgtttgattcattttcctctcatttaccttcaccaccttgcttgctgatctccttgatt
.
tctagtcaccaccaaaggagcagaattcttgttcat

Exon 6 | Start: 49971 | End: 50067 | Length: 96

.
cccattcagtgacatctcttagaaaccactgttttcgagggtaaactgaaagcattgctc
.
agatgcttcacggaatgagaccatcagcattaacatagatacaaaactcatctattccagg
.
cagctttacctaagagtggactgaggaatatctgagtatgtgtaactgtagagtgaccgt
.
ccaaaacaaacaccagggtgactttagacattttattgttgctccttcagaggaccacaa
.
gtgttacttcattagcattttattttcaggtaaagcgtctcagctctctccttattttaca

 |451 |461 |471 |481 |491 |501
CTGTTTGTGAAAGTGGCTGTCTCAATGGAGGAAGGTGTGTGGCCCCAAATCGATGTGCAT
 V C E S G C L N G G R C V A P N R C A C
 |151 |161

 |511 |521 |531 . . .
GCACTTACGGATTTACTGGACCCCAGTGTGAAAGAGgtaatgggtttttaaaatcatttac
 T Y G F T G P Q C E R D
 |171

.
 gtaaagacatgctggtacctaagctgttactaatttgacagacattgggtctgcatgg

 ctacttcctgaatggtgctgagctttgaggggatttctcatttgctcattgggaaggtccc

 taggatgacaagacagcgccctgaatctatgcatgatattcggaatgtttgtcagtcc

 aagtttacctaaattcagttatttgctaatttgggtggtactcagttatgagtgatacat

 aattaccagttggcatcaggataaaaaggggagaac

Exon 7 | Start: 108541 | End: 108739 | Length: 198

.
 tgttacatttgtagcaattcacagttgtaaagagttttcattagctcgctgacct

 cacaatgccgttttcaaagtgggtaacaactgatgttttcatccctattttgtaggttag

 gaaatcgggttcagaagtagaatggtctatccaaggccttacacaggacagtgatgcat

 gattctgtccctgaaattcatttctcaatttggagtcaagcaagatggagcacagctgtt

 cctctgcatgatggttcctgcttttctggattttcatcagatttttattctttattttca

|541	|551	|561	|571	|581	|591
ATTACAGGACAGGCCCATGTTTTACTGTGATCAGCAACCAGATGTGCCAGGGACAACCTCA					
Y	R	T	G	P	C
F	T	V	I	S	N
Q	M	C	Q	G	Q
L	S				
|181		|191			

|601	|611	|621	|631	|641	|651
GCGGGATTGTCTGCACAAAAACGCTCTGCTGTGCCACAGTCGGCCGAGCCTGGGGCCACC					
G	I	V	C	T	K
T	L	C	C	A	T
V	G	R	A	W	G
H	P				
201		211			

661	671	681	691	701	711
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CCTGTGAGATGTGTCCTGCCCAGCCTCACCCCTGCCGCCGTGGCTTCATTCCAAATATCC
 C E M C P A Q P H P C R R G F I P N I R
 |221 |231

|721 |731
 GCACGGGAGCTTGTCAAGgtaaaccgggctgatggaattattaatggattaatcttatt
 T G A C Q D
 |241

.
 tgctctggagagccattctccaatgaagttgaagagaatggaaaagtagtgtcagctaca

 taacttcacaatttcgctgactgcatgatatccaactaaggcattaggaacgtggctctc

 gagagagcagctgaagtcttactgaatgttttcttgccaaccattcccccttctgaccc

 cagaggtgtttgtatgtacctctgactccaggggtggtgtgattctgtttacagcgatgc

 agtgcattatggcagtg

Exon 8 | Start: 112144 | End: 112270 | Length: 126

.
 gctgcatatgtgctaaaaccgcaaaagttaatgcactctcctctacattaggaacatg

 gaaggtgggaaaacaaaaatacttgtgacttcttatggaacattattaatcaaacgatg

 tattttacataatgcaattgtgagaacagtttctctaatacatattccaaatattgtgat

 ggacaaataactcacgatataaatatggtaacataattgtggacaaattatcacat

 attctgcaatgaatttcatatgagtttttttttctctctgtcttctgtaatctgaca

|741 |751 |761 |771 |781 |791
 ATGTGGATGAATGCCAGGCCATCCCCGGGCTCTGTCAGGGAGGAAATTGCATTAATACTG
 V D E C Q A I P G L C Q G G N C I N T V

	|871	|881	|891	|901	|911	|921
ATATTGATGAATGCAGCACCATTCCTGGAATCTGTGAAGGGGGTGAATGTACAAACACAG						
I D E C S T I P G I C E G G E C T N T V						
	|291			|301		
	|931	|941	|951	|961	|971	|981
TCAGCAGTTACTTTTGCAAATGTCCCCCTGGTTTACACCTCTCCAGATGGTACCAGAT						
S S Y F C K C P P G F Y T S P D G T R C						
	|311			|321		

GCATAGgtaggtttaatgacaaacagcatgcatggtttgtaagtcagttccataacaa
I D

.
acaactttctaacaagcttgtaaggagcacatataatttatcaactgaggtaaaatgt

.
acatttttgaaaaatgttaacagttgactgccctcttaagaacagaggcaccttggtg

.
gtcattttggagacgttttgcctcccataaaagagggatgatccaggagaccttacaggt

.
atcttcagtcctattaattaatgttgagtcgtgcagcattaaaccttgaagccatcccag

. .
gtgtct

Exon 10 | Start: 125532 | End: 125691 | Length: 159

.
ttttcttagtctctcttttcctatggcacacatggttttaatcactcgttcccaccttgg

.
gtatggaatgtgggacttcagccaagtgcactagcacacaggggcaaaaggtgtgagacc

.
agggatttctgactgagcactgttcctgtgcagcgctcgagcttcccttcgggggggca

.
gaggtgtgagttaatcctgccgtagccccagtgatgaagtatggagctgctcgggcagggg

.
 agtggtgttacaagtattatctcagcgatgtgtgtgtgtatgtgtttctttgtcctca

 |991 |1001 |1011 |1021 |1031 |1041
 ATGTTCCGCCAGGATACTGTTACACAGCTCTGACAAACGGGCGCTGCTCTAACCAGCTGC
 V R P G Y C Y T A L T N G R C S N Q L P
 |331 |341

 |1051 |1061 |1071 |1081 |1091 |1101
 CACAGTCCATAACCAAAATGCAGTGCTGCTGTGATGCCGGCCGATGCTGGTCTCCAGGGG
 Q S I T K M Q C C C D A G R C W S P G V
 |351 |361

 |1111 |1121 |1131 |1141
 TCACTGTCGCCCTGAGATGTGTCCCATCAGAGCAACCGgtaagagcccttccagttatc
 T V A P E M C P I R A T E
 |371 |381

 tgcagaatatcccatcccagccctcacaagcccagtggaatgtgcatgatgcagatgta

 atggaaacttgggtaaatgagtagtctccaggaaatataagagatgacgtccagggaat

 ttccctagaaaatgcacaggaaaaaaagggtctgtacaaagagtactgttttcaggt

 actgctttttacttagctggcttattactactaaacagaaaccttttggggaagtactta

 ttctcatttttagtacttaatggctctcatggagtactca

Exon 11 | Start: 129987 | End: 130167 | Length: 180

.
 gatggagaaagtagtacttttatgttttccatgaggtgaattttgatacagataaagact

 ctgaggttttgggaggaacatgggttttgatttgaattattgttccagagtgggttgctgc

 tgcaggtattaaaaatgggaatccagtcagttggttcttttcttttctccagttgacct

.
gtgaatTTtgaggatcaatTTtattcaaaaatatctTTaaaaaataaggatgacttctg

.
tgggcctatgatcataagctacagctcagctgttggttttgttttgttggttttctta

 |1151 |1161 |1171 |1181 |1191 |1201
AGGATTTCACAAGCTGTGCTCTGTCCTATGGTAATTCCTGGGAGACCAGAATATCCTC
 D F N K L C S V P M V I P G R P E Y P P
 |391 |401

 |1211 |1221 |1231 |1241 |1251 |1261
CCCCACCCCTTGCCCCATTCCCTCCAGTTCTCCCTGTTCCCTCGGCTTTCCTCCTGGAC
 P P L G P I P P V L P V P P G F P P G P
 |411 |421

 |1271 |1281 |1291 |1301 |1311 |1321
CTCAAATTCGGTCCCTCGACCACCAGTGAATATCTGTATCCATCTCGGGAGCCACCAA
 Q I P V P R P P V E Y L Y P S R E P P R
 |431 |441

.
gtaagaattcaaaaatcatctagttatTTtcttgcatgttcaagttaacattTTtTTta

.
ttatttatttatgctacttttagtcattaaataagtttgtaaattgttatattaattTTtg

.
gtttacataaatgttatctatatctatatcatatgtatgtctcaattttcctattgcatag

.
agaaaaacgggaggcttcctattctccagagattaatgtccttttgttattggtgTTttc

.
aggcaactatgggagagttatgggcgatagttaaatctgattcacagaaaggattaatag

Exon 12 | Start: 130822 | End: 130963 | Length: 141

.
tagttcaataccaatatctctctgcctttgttatttctgcaaactagaggTTtgagagtg

.
aggTggtgaagagggcagagaaaagcaggctgcagctgggttggtgagctccccagtgctc

.
 acagtgcaatgtgatctctgttggcaggggtggaatatgctctgttgtcaccagacgacc

 ttgtcccaaagagtatcctctttcctttctgattcaacatcttgttcattattgtcagat

 taagtactgatgaaagataccatagttaaaataattttaatggggcttaatgttcttcta
 |1331 |1341 |1351 |1361 |1371 |1381
 GGGTGTGCCAGTAAACGTTACTGATTACTGCCAGTTGGTCCGCTATCTGTCAAAATG
 V L P V N V T D Y C Q L V R Y L C Q N G
 |451 |461
 |1391 |1401 |1411 |1421 |1431 |1441
 GACGCTGCATTCCAACCTCCTGGGAGTTACCGGTGTGAGTGCAACAAAGGGTTCCAGCTGG
 R C I P T P G S Y R C E C N K G F Q L D
 |471 |481
 |1451 |1461
 ACCTCCGTGGGGAGTGTATTGgtacgtgatccatccttaggttggcaccaagggtctgttg
 L R G E C I D

 taattctgttccttgactctactgggttttctattgctgctgtaacaacttaccctaaact

 tgggtggcttaatacaatacaaatataattatctttcagctctgtaggttagtagtccaa

 cagaagtcttactgggctaacaatccaggtgttgggagggtgtcttccttttggtggctc

 ttgggaggaatccatctctttgcctttttcagctactagcagctgcctgtgtccttagct

 catgacccttcctccatttt

Exon 13 | Start: 132681 | End: 132801 | Length: 120

.
 tgtttggtcctcttagatcagactcaaggaagaaaaatgtttattagatcagattgttg

.
 agttgctacatgtttggaatctctgcaaaatgacacatgaaaataatacactttaa

 ctgctcaaccagtcttcaaattggctaattgacatattgtagtggaagaaaaaagatcctt

 ttattatgttattttctcaaaaggaaaatgttttatatgtataaaaggaaccagaa

 agtcttagaattatgaggtattgctatgtaatttgcactaaaatacattgtgctttgca
 |1471 |1481 |1491 |1501 |1511 |1521
 ATGTTGATGAATGTGAGAAAAACCCCTGTGCTGGTGGTGAGTGTATTAACAACCAGGGTT
 V D E C E K N P C A G G E C I N N Q G S
 |491 |501
 |1531 |1541 |1551 |1561 |1571 |1581
 CGTACACCTGTCAGTGCCGAGCTGGATATCAGAGCACACTCACGCGGACAGAATGCCGAG
 Y T C Q C R A G Y Q S T L T R T E C R D
 |511 |521

 gtatggctcctggctcctgacgtggaatgtgggacatatatgctaactgggggttggttc

 aaaggagttccatggagtttaataaaccatgccggaagagactaatacagtcctggc

 tttttgaaacttagttccacctattgtcattctgaaagacagtgtcataaaatctggcaa

 gcattgaagttattttataagatgcgtctatgcctgaaggaaaatcttattttcagtatt

 gttgtctcgtcactattattgcctcttaagttttcatctgagaagtagagagtggaattg

Exon 14 | Start: 136180 | End: 136306 | Length: 126

.
 atagatgtgcttggaatatggtgaagaagaatctattttgtttacagacttcgatttaa

 ggagtcttattagaaattagagttacatctaattgccattatacaggttttttatcatgtc

.
 ttttcaactctgataaccctaaatatcacattatttgataaccaatttatgttgagaat

 attattaagtaattaaacccaaaagccaagatcatgagtttgcaaattggagggaggggga

 aataaaataattttaactcccctaaataaagctatttcttctttttaacttttgatttta

 |1591 |1601 |1611 |1621 |1631 |1641
 ACATTGATGAGTGTTTACAGAATGGCCGGATCTGCAATAATGGACGCTGCATCAACACAG
 I D E C L Q N G R I C N N G R C I N T D
 |531 |541

 |1651 |1661 |1671 |1681 |1691 |1701
 ATGGCAGTTTTCATTGCGTGTGTAATGCGGGCTTTCATGTTACACGAGATGGGAAGAACT
 G S F H C V C N A G F H V T R D G K N C
 |551 |561

 |1711
 GTGAAGgtaataatagtataactaatgttagtcctctccttcattgcagtttcaatatca
 E D
 |571

 ggggtctttaacaagaccaataatgagtgaaatgtcaaagtatcaaatatgttttatat

 attttatctcaaaaggaagcctaattttccatgatattcatttcttaatttacatttgtg

 tgaatcaaataacattttaatatgctaggagagcttgccatttaagatccctgggtgtga

 tgaaacttctgtggcacaatttcatactttctaattttttacaatcagaatttgtacatt

 . . .
 ttttaa

Exon 15 | Start: 137645 | End: 137768 | Length: 123

.
 aactattattcctaaaaaggatcctgataacttctatggagtcaaattttataaatagat

.
 atacctatacatctagccctagagtttgcatgcacatgccaaaactcaagaacttgagat

 atgtatttcatatgtcccatcttctccttccttagatgatcttatttggatgaaagtttag

 ccttaggctgtaataacaaaaagaagaatacgaagaaacagaattattttcatccaga

 ttggtttccttcgtaagcttactcttctggtcataagaaaatgtatgttttgatattttca
 |1721 |1731 |1741 |1751 |1761 |1771
 ATATGGATGAATGCAGCATAAGGAACATGTGCCTTAATGGAATGTGTATCAATGAAGATG
 M D E C S I R N M C L N G M C I N E D G
 |581 |591
 |1781 |1791 |1801 |1811 |1821 |1831
 GCAGTTTTAAATGTATTGCAAACCTGGATTCCAGCTGGCATCAGATGGACGTTATTGCA
 S F K C I C K P G F Q L A S D G R Y C K
 |601 |611

 AAGgttcgtgctataaaaccctagatcatgttcttcacgtgccttttctcctccttatgt
 D

 tgttttagagggtactacctttctttactgattctccccacttaaagtaccttgaattttgg

 tttgggaaacctgactgaaactccttcttaaatccagccatccaaagagctacagtttat

 gcccagaagactattgttatttcagaaagggtatttgaggcttctctcaaaggagtcaaaa

 gctatgtagcaaataaataatccaaactgcctattgggtcttccaacagatgtgggcattg
 .
 ttc

Exon 16 | Start: 141202 | End: 141325 | Length: 123

.
 agccattgttctccttcctctgattctgtttttgcctttgtgattattttgatacaaaa

 atctcttgggagaatatattaaagtactttttatggaaaataagttccaacagttgatt

 tctcttgattttggtactgttctttcaaaggaaaatgagaatgccatttgagcttttggt

 gctgatgctgcatattatttcctatcttccccattttcaagggttaaacataattgtca

 acatgttataattttagataaatgtcacttcatttttaataagtcctttctctgccaca

 |1841 |1851 |1861 |1871 |1881 |1891
 ACATTAACGAGTGTGAAACCCCTGGGATCTGCATGAATGGGCGTTGCGTCAACACTGATG
 I N E C E T P G I C M N G R C V N T D G
 |621 |631

 |1901 |1911 |1921 |1931 |1941 |1951
 GCTCCTACAGATGTGAATGCTTCCCTGGACTGGCTGTGGGTCTGGATGGCCGTGTGTGTG
 S Y R C E C F P G L A V G L D G R V C V
 |641 |651

 TTGgtaagaaaacatcatggctaaccttatgagagaggttcagcctctgtcactcaataa
 D

 agcccaatggtaacaaacgctctctactgtagcagataagatataaagaatatttgaga

 gcaacaaaccaacagggtcagttctctttttgtgtaaattgaacattaatttgaggatta

 gaaagatgagctaagtgaaaagcaagggaatccccacctatccttcccccttttcttccc

 taatcccgtagctgtcttcagttttctccaggcctcctttgttgatattggtcattgaaa

 .
 ttg

Exon 17 | Start: 142410 | End: 142563 | Length: 153

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. . . . .
gagaaagacaaaataagtgagatataattccagcattgaaggcctcacattttagtaaa

. . . . .
ccatgatactccctagaaaactgaagcaatctggccattggtttccagtgccttagaagct

. . . . .
gaacgtgttttggttttctgttttgtttatttttcttcaaattggagccccgatatcag

. . . . .
aggcattccctgtgagttacaccagggatgatggataaataaagccctcttcaactttga

. . . . .
cttggggggttctcatctgtttgaagtgcagtgatgatgacagatgcttcttctgttta

|1961      |1971      |1981      |1991      |2001      |2011
ACACACACATGCGGAGCACATGCTATGGTGGATACAAGAGAGGCCAGTGTATCAAACCTT
  T  H  M  R  S  T  C  Y  G  G  Y  K  R  G  Q  C  I  K  P  L
                |661                                |671

|2021      |2031      |2041      |2051      |2061      |2071
TGTTTGGTGTCTGCTAAATCTGAATGCTGTTGCGCCAGCACTGAGTATGCATTTGGGG
  F  G  A  V  T  K  S  E  C  C  A  S  T  E  Y  A  F  G  E
                |681                                |691

|2081      |2091      |2101      |2111      . . . . .
AACCTTGCCAGCCGTGCTGCTGCACAGAATTCAGgtatgtggatatcatggagatgccctcg
  P  C  Q  P  C  P  A  Q  N  S  A
                |701

. . . . .
tactgccagccttctgccaccattgaggtctttgcatttgtggaattcacaggaagatg

. . . . .
acattttgctctccaggtacgccatgtgccttcttgggggtcttggcagaggccagccagt

. . . . .
gtctagtcacaggtacttatctaagcctcataattatttggaaataggcattgcatttgtg

. . . . .
cctctcgataaaactctcctacctaataatactcaagctgtttgcaatacatgcacctt
```

.
gccttgtttctaaagttgtttcatgatgttg

Exon 18 | Start: 147311 | End: 147365 | Length: 54

.
tgtaaagtgttcctgggtgaacaaaatcaagttataggaaaaacacctttccgaaagg
.
ctttgcacaaggaattgctataactgcctgtatccttaaaagttgtttccttgatgat
.
gtgtagcctttaaagtgggagcctgggtgtaaagtgactccctggggagatacctccttt
.
tccgttaccacttaagtttggttctactcactttggaggaaatgatgtgtgcaaaccaa
.
gggcaggatctacctgttctgcaacaagggaatcatttactatctgttaatttattgca
|2121 |2131 |2141 |2151 |2161 .
CGGAATATCAGGCACTCTGCAGCAGTGGGCCAGGAATGACGTCAGCAGGCAGTGgtaagg
E Y Q A L C S S G P G M T S A G S D
|711 |721

.
attcctttcaaaatttactaccttcagtatgtgcagaggcagcatcaggctttcttggtg
.
gtttccagttgatccctttacactagtctggcctgactccctctctggccatcactgtgc
.
catgtatctgggatgctcagaagccttcagtggcagagcagccggggcactgtgggctct
.
aggatttctgggtgtggctgtgggacttggccactgagggggtcaggtgctctctcagtg
.
tggttgatgggtgctcgcagatgatgtgtaatgacttttgctcatgcttga

Exon 19 | Start: 148958 | End: 149084 | Length: 126

.
 tccatcttgggtgcttggactaggagaagtccaggaggtctccttcagcttgattaaggat

 tggttatctttagtccagctgagatgcaaagttcctctcaggaacttgtagggagaaag

 attggactcagaatatcttacagtgaagaaaagagacagagtgttctctttccagtgaag

 tcgatttttttctcctgtagctcctaaggtcattacatttattgtagtattatatttt

 aacaattcattcagttattttttataatcttaattgattttgacctttttgtggtgca

 |2171 |2181 |2191 |2201 |2211 |2221
 ATATAAATGAATGTGCACTAGATCCTGATATTTGCCCAAATGGAATCTGTGAAAACCTTC
 I N E C A L D P D I C P N G I C E N L R
 |731 |741

 |2231 |2241 |2251 |2261 |2271 |2281
 GTGGGACCTATAAATGTATATGCAATTCAGGATATGAAGTGGATTCAACTGGGAAAAACT
 G T Y K C I C N S G Y E V D S T G K N C
 |751 |761

 |2291
 GCGTTGgtgagaagttttacccattttctgaaacattgcctgcataatgcattccttctt
 V D

 tcattgctgggagaaaactgcctttgagtagcttagaggactgggcaaaggacacttta

 tacttcggatggttagcacagcatatacatatcttttagtaacaaaatttacatcactgaa

 tcttcacagtttatgaataacgatgtatcagattcactccttgaaatgatttgctcctta

 aaataatgatgtatcagatttcactccttcaaagagaagctccttagatataagatgcag

 . . .
 agattc

Exon 20 | Start: 150124 | End: 150250 | Length: 126

.
taaagattaatgatttccagcaaactgtattttcttcctgctaaagaaataagtgaatt

.
aaatagcctagtgacttttaggctttgtagatatttagtttagatacttagtttaaacca

.
ggtcaagcctctgttttcctaaaatgagatagtttaggtaaaagctaagtctacaggagt

.
tttgcctttttgcttgaattgatcacgtcgttatgactttaagatctaagttaaagag

.
caaagtagatacaggcaaagtttgggccctttttaagtgtttattttcattgactttgca

|2301	|2311	|2321	|2331	|2341	|2351
ATATTAATGAATGTGTACTGAACAGTCTCCTTTGTGACAATGGACAATGTAGAAATACTC					
I N E C V	L N S L	C D N G	Q C R N	T P	
	|771			|781	

|2361	|2371	|2381	|2391	|2401	|2411
CTGGAAGTTTTGTCTGTACCTGCCCAAGGGATTTATCTACAAACCTGATCTAAAAACAT					
G S F V C	T C P K	G F I Y	K P D L	K T C	
	|791			|801	

.
GTGAAGgtaaaccatatttttgttcttatactgtgtactttgctatcttttggaatgccca
E D

.
ttagaaaaccataagactgaattagagtctcctgtattttagacagttatgccagtttag

.
ttgaaattctgtggttctacatggcactagtatgtactttgtaagccacttatggtattt

.
acttgtaattggcattttaattgccatcatttaataagataaagaaatgttatgtgtctg

.
ctatttgagctatttcattcagaaatcacatacacatttactccagattttctaataaaaa

. .

agattc

Exon 21 | Start: 150761 | End: 150881 | Length: 120

BE AWARE: Flanking intron is shared with the following exon

.
gataaagaaaatggttatgtgtctgctatgtgagctattcattcagaaatcacatacacat

.
ttactccagatgtttctaaataaaaagattcagccaagtcccgtattctatactatagaga

.
tgtactagtctatactatagagttattatgttggcattccatctagtgtaggaaaaacta

.
tttagcccagctttactgtgtgggattaaggatatgtagtagcaattgggggtcaaagttg

.
aagtactcttttaggcccaagactagatgttagcagtaatgtagacctgttttgtttca

|2421	|2431	|2441	|2451	|2461	|2471
ACATTGATGAATGCGAATCAAGTCCTTG	CATTAAATGGAGTCTGCAAGAACAGCCCAGGCT				
I D E C E S S P C I N G V C K N S P G S					
|811			|821		

|2481	|2491	|2501	|2511	|2521	|2531
CTTTTATTGTGAATGTTCTTCTGAAAGTACTTTGGATCCAACAAAAACCATCTGCATAG					
F I C E C S S E S T L D P T K T I C I E					
|831			|841		

.
gtattttatctttctgagaatgatttttctatgtttatcaatgttggttatacttaatgtca

.
gcttttctgcaaaagaatttaagtatggatgaacaatatta

Exon 22 | Start: 151089 | End: 151227 | Length: 138

BE AWARE: Flanking intron is shared with the previous exon

.
aaaacttcattattccttggtttcaaagctatgtttgtctataattccaagggtgtatgtt

```

. . . . . |2541 |2551
tgaatttttatatagattctattaaatattattccctcctctgcaAAACCATCAAGGGCA
                                     T I K G T
                                           |851

      |2561      |2571      |2581      |2591      |2601      |2611
CTTGCTGGCAGACTGTCATTGATGGGCGATGTGAGATCAACATCAATGGAGCCACCTTAA
  C W Q T V I D G R C E I N I N G A T L K
                        |861                        |871

      |2621      |2631      |2641      |2651      |2661      |2671
AGTCCCAGTGCTGCTCCTCCCTCGGTGCTGCGTGGGGAAGCCCGTGCACCCTATGCCAAG
  S Q C C S S L G A A W G S P C T L C Q V
                        |881                        |891

TTGgtaagagaaacccatgctgtggttcctataccactccaatggtctttgcataaaaag
D

. . . . .
gggaagcctagtagtttcatctatctaggctcacatgagaatttcaaagatttaacctg

. . . . .
atggccccgaacatattgctgaatgggaaataagaagtgtaaattttatgtgattttgt

. . . . .
tcatttattattttctatcttcacattgtaatgtggttagtttggttgcttcctggag

. . . . .
caccagtgcctgccagctctcttggaaccttggttaggggttctgagctttttatag

.
gta

```

Exon 23 | Start: 152095 | End: 152146 | Length: 51

```

. . . . .
caagagagaaagctaccttcagtttccctccttagctatcactttaacatgatctataggg

. . . . .
cacgtctgtgtcttttgagtagtcttagtggaattgagctttatttgaggagacatttca

. . . . .

```

ttactgttcttctcacctatgcaatcgcaaaacattttgttatctcatacttatagca

 acacaatctacttcatgttccaggtcatctttcatgtttcttacactatgtcagaactgc

 aaagtctggatattgttatctcaaatttgttttctgttttgtttttcgctttttattaca

 |2681 |2691 |2701 |2711 |2721 .
 ATCCCATATGTGGTAAAGGGTACTCAAGAATTAAAGGAACACAATGTGAAGgtattttctg
 P I C G K G Y S R I K G T Q C E D
 |901

 attacttataaaccatacatttttgtgtgcataatgaatgtttgtgttaactcggactgg

 ataaagctgtcatataacttcacagggagaaatatgcagcagagaaaaaaataatgaga

 actacaaaacggaacagctgttaatttcacaagcatatatatactgttgctagtgtcaga

 acgctatgtccaaaggacaggggtgggtggctgaaatgttttaggttgatcgcgagtttag

 agagactgcactttcaaatgctatcaggaagagaaaaacaggaagttttt

Exon 24 | Start: 153763 | End: 153889 | Length: 126

.
 ttacctgaaatgtccgcagctaccagagctgtctccaagaactcacaccagctgcctgtc

 tctacaactcaaaagtattccctgaaaccaatggagaaactcttacatatttagtaata

 ggtgggctcgttctggttgctattcaggcacccctagaaattctacacaaactactttag

 gcaaactagttttatgaacttaccaggttcaaatggggaataattatgactctatgagt

 agaataaggtagaatgatattataaagatatattaactttatacttttttttcttttta


```

. . . . .
gcagtttggggcagtggaagccgtgtggctctatttaacctcccttgattccctctgaca

      |2861      |2871      |2881      |2891      |2901      |2911
ATATCCGCCTGGAAACCTGCTTCCTGAGGTACGAGGACGAGGAGTGCACCCTGCCTATTG
  I  R  L  E  T  C  F  L  R  Y  E  D  E  E  C  T  L  P  I  A
                        |961                                |971

      |2921      |2931      |2941      |2951      |2961      |2971
CTGGCCGCCACCGCATGGACGCCTGCTGCTGCTCCGTCGGGGCAGCCTGGGGTACTGAGG
  G  R  H  R  M  D  A  C  C  C  S  V  G  A  A  W  G  T  E  E
                        |981                                |991

      |2981      |2991      |3001      |3011      |3021      |3031
AATGCGAGGAGTGTCCCATGAGAAATACTCCTGAGTACGAGGAGCTGTGTCCGAGAGGAC
  C  E  E  C  P  M  R  N  T  P  E  Y  E  E  L  C  P  R  G  P
                        |1001                               |1011

      |3041      |3051      |3061      |3071      |3081      .
CCGATTTGCCACAAAAGAAATTACAAATGGAAAGCCTTTCTTCAAAGgtacaatgttac
  G  F  A  T  K  E  I  T  N  G  K  P  F  F  K  D
                        |1021

. . . . .
gttttccatggccaattgcctcccttttagacaaataggatgcattttcatgatctcag

. . . . .
cactctacttgatcatcccagcatggactttttgctttctgaattatataattatctttg

. . . . .
tttagaaaagtatgaactttttgtttttaactgtttggtccaagaagtcctggggggttaa

. . . . .
aattgttctgtatggagagatagtttcagatagtttctaggtggccctcttaaattgtcag

. . . . .
ttacgtaaactcaaaggaactttaattttgcttccaaaagctatggta

```

Exon 26 | Start: 157856 | End: 157982 | Length: 126
 BE AWARE: Flanking intron is shared with the following exon

```

. . . . .
tcactcagcaagtagtggttaaatttcactatgtgtcaggcagtgctgtgggccctaga

```

.
 agtctgaatagacacattatttgcttctttaacaatgctttataaaatgtagaatttga

 aaggctagaatgtttacaaagtcatatatctcatggatcatcacacattcttgaaatg

 tatactgccaagaccttaaatcaagaacttccaaccttcatgatttaaaatggtgggcat

 tgagacctcctgactgcttgctcataaacttattttgccccacattttcttattcttgaa

	|3091	|3101	|3111	|3121	|3131	|3141
ATATCAATGAGTGCAAGATGATACCCAGCCTCTGCACCCACGGCAAGTGCAGAAACACCA						
I N E C K M I P S L C T H G K C R N T I						
|1031				|1041		

	|3151	|3161	|3171	|3181	|3191	|3201
TTGGCAGCTTTAAGTGCAGGTGTGACAGCGGCTTTGCTCTTGATTCTGAAGAAAGGAACT						
G S F K C R C D S G F A L D S E E R N C						
|1051				|1061		

.
 GCACAGgtcagttaatgagccttaagggccaggagaggggacgtcctttaaaactcttta
 T D

. .
 tctttaac

Exon 27 | Start: 158108 | End: 158237 | Length: 129
 BE AWARE: Flanking intron is shared with the previous exon

.
 atattgtcgcaagaattaaggctgtcctgagactcatttgctgccacttgctgtttttgt
 . |3211 |3221 |3231 |3241 |3251 |3261
 gcaACATTGACGAATGCCGCATATCTCCTGACCTCTGTGGCAGAGGCCAGTGTGTGAACA
 I D E C R I S P D L C G R G Q C V N T
 |1071 |1081
 |3271 |3281 |3291 |3301 |3311 |3321
 CCCCTGGGGACTTTGAATGCAAGTGTGACGAAGGCTATGAAAGTGGATTCATGATGATGA

P G D F E C K C D E G Y E S G F M M M K
 |1091 |1101

|3331
 AGAACTGCATGGgtaagtttggtgatcatttgatcaacacagaaagagaaggattccatga
 N C M D
 |1111

.
 agctttgatggctcatagcctatgttccaggttcttctgctgccccagtgcaaccagtg

 aagttaggaatcagtgctgcaacagaggagactgaggtagaagaatgagggaattcatg

 ctgtgggtttgtgggtgatggcggagaccagttgtgggcccttgagaagtgattttaaca

 cctgaaatggataccaggcggaagagaggacaattgagacagaagctgtagtagaggtc

 cctttacaagat

Exon 28 | Start: 158912 | End: 159038 | Length: 126
 BE AWARE: Flanking intron is shared with the following exon

.
 gaaatggagattcttgcaaaagtggtatttcttactgtgagcaaattctctcagaaggta

 cttgtcaggaagtaaggagagcagggtagtgaggagaagaaaataaccaagagtttgg

 ctgcattttggtttttagtctgatcctgcaggagatctggtgtatgaatagcaccagaga

 gttgtcccaccttgagacaaggaggtcaagatggacaccagcaatgggtgggggaggag

 tgcttggtctggtggaggagatgaggccccacctttaacatgggtcatttccattttgca

|3341 |3351 |3361 |3371 |3381 |3391
 ATATTGATGAGTGTGTCAGAGAGATCCTCTCCTATGCCGAGGTGGTGTGTTGCCATAACACAG
 I D E C Q R D P L L C R G G V C H N T E

|1121 |1131
 |3401 |3411 |3421 |3431 |3441 |3451
 AGGGAAGTTACCGCTGTGAATGCCCCGCTGGCCATCAGCTGTCCCCAACATCTCCGCGT
 G S Y R C E C P P G H Q L S P N I S A C
 |1141 |1151

|3461
 GTATCGgtaaggagaaagactttcacaccatttacttgtggtcagttggttgaatgacat

Exon 29 | Start: 159149 | End: 159275 | Length: 126
 BE AWARE: Flanking intron is shared with the previous exon

.
 cattgccaaagttggaagcttatgtttgggtggttgttcttcttattttcccgacaACAT
 I

|3471 |3481 |3491 |3501 |3511 |3521
 CAATGAATGTGAGCTGAGTGCACACCTGTGCCCCAATGGCCGTTGCGTGAACCTCATAGG
 N E C E L S A H L C P N G R C V N L I G
 |1161 |1171

|3531 |3541 |3551 |3561 |3571 |3581
 GAAGTATCAGTGTGCCTGCAACCCTGGCTACCATTCAACTCCGATAGGCTATTTTGTGT
 K Y Q C A C N P G Y H S T P D R L F C V
 |1181 |1191

.
 TGgtaagttctttttattttattttattttattttattttactttattttatgttatgt
 D

.
 tatgttatgttattttattttattttattttcatctctccctaaaacactctatgtactct

.
 gagttttgttttcatcgctacttttacttatctttcttggtttccctgcaatattcttttt

.
 atagtggtcacgatctttggatctcatctccattatctgtttaagagccagtttaagtg

.
 aaggacataggatgttttagctctaataagcataatttgacccatgccgtttggataggg

.
aa

Exon 30 | Start: 160853 | End: 160976 | Length: 123

.
tcacagttctggagggtgggaaatccaatatcaagaagccaggatTTTgcatggTccttc

.
ttcctacgttatcccatgaagaaagcacgagggtgaaagagagcaagagggggctgaac

.
ttgatcttttataacagcaccgatcccaccatgagggtagagccctcataggatgattac

.
ctcttttaaaggccctgcctcttaaatagtgttacaatggcagttaaatttcaacacgag

.
tattggaggggacagacatccaaacatatcagaaggtgatatttttcatTTcctttaa

|3591 |3601 |3611 |3621 |3631 |3641
ACATTGATGAATGCAGCATAATGAATGGTGGTTGTGAAACCTTCTGCACAAACTCTGAAG
I D E C S I M N G G C E T F C T N S E G
|1201 |1211

|3651 |3661 |3671 |3681 |3691 |3701
GCAGCTATGAATGTAGCTGTCAGCCGGGATTTGCACTAATGCCTGACCAGAGATCATGCA
S Y E C S C Q P G F A L M P D Q R S C T
|1221 |1231

|3711
CCGgtgagtaggttctagcctcatgttgaatctctcagtaggttcctaagtaaagtagtt
D

.
tagggcccaggctttggagtcaagcaggcttgagtccaaacccttgTTTgtcatatatTT

.
taactgtatccttaatcaagatacctattattagaatcctcatctataaaatgaagttca

.
aattgcctgcataaaatagtattttacagagcttaccatagtagctggcatataataaatg

.
gaatataaaatacattttccttcattgaccagacttttgaagagtttgatgttttggcct
.
aat

Exon 31 | Start: 162406 | End: 162532 | Length: 126

.
gatttataataatttttgaatgataaattaaatgaaagaaagattttaataaataatag
.
acttttaagcaggtgtggacgttgcccttgagcagtatattataaatattgaaaaatatt
.
ttttccttttttaccaggataaccaatgggctagtttatgcaaagcttcatttggatt
.
tgagagttaatagtcttatgctagtaggctaagtttatttgactgcggtcagttaatgtt
.
ttctcactgaacagtgggaaccaatatcaacaacctgtggttgttggtttattcctttgca

|3721	|3731	|3741	|3751	|3761	|3771
ACATCGATGAGTGTGAAGATAATCCCAATATCTGTGATGGTGGTCAGTGCACAAATATCC					
I D E C E D N P N I C D G G Q C T N I P					
|1241			|1251		

|3781	|3791	|3801	|3811	|3821	|3831
CTGGAGAGTACAGGTGCTTGTGTTATGATGGATTGATGGCATCTGAAGACATGAAGACTT					
G E Y R C L C Y D G F M A S E D M K T C					
|1261			|1271		

.
GTGTAGgtaagcaaagaagacagaatttttcatcttgtctttagtcataagcactgtt
V D

.
aaattacataaagttagtttgggtcagtgatagaaagattccataggaaaagtaaggata
.
tttagaggcacaatactcatattttaaccagcattccaaagagagctttcttgtggctat

.
taaatggtactcttgtcagatatgttatgaggactgactggccattcgtcagctccagat
.
ggacatttcttttatgcctatccattacttttgtccacttaaccctccttctgctttgac
. . .
tatcat

Exon 32 | Start: 164569 | End: 164695 | Length: 126

.
tgttctaaaaagttttctagactgtcacataaacgagctctaaactcagcatggagccca
.
tctgtttatttgattaactggcctgctgcttatgggccagatgaaagccagtctgaataa
.
tgagcttgcaatgtaaagaatgaagagcaaattgaaattggcctctaaaatttaacattg
.
tttttctgagggaagcattttaccttttctaattgtatttgcatagttattatgtctcg
.
aggggaaagtactcaatgatatacaatagctacatatattaatagtatatatgttttaca

|3841	|3851	|3861	|3871	|3881	|3891
ATGTCAATGAGTGTGACCTGAATCCAAATATCTGCCTAAGTGGGACCTGTGAAAACACGA					
V N E C D L N P N I C L S G T C E N T K					
|1281			|1291		

|3901	|3911	|3921	|3931	|3941	|3951
AAGGCTCATTTATCTGCCACTGTGATATGGGCTACTCCGGCAAAAAAGGAAAAACTGGCT					
G S F I C H C D M G Y S G K K G K T G C					
|1301			|1311		

|3961	. . . . .
GTACAGgtgtgtttgttcaagtagaacaataaaatattaagtagttaagagattggtatc	
T D	
|1321	

.
ataattatagattgatacatgtttttaaactcatatcttaactatattataaaacatt

.
 ttgcataacatccccattaatttagcttcacttctttgaaatttgtcatcgtttatat

 tggatccaagttgcagggttttttcttgacctgtggggggaaaaaggtgtattgaataaa

 ttaacactgtaaatagcacatccccatgagggttaaaaatcacatccccatatacaattag
 . . .
 tgaaca

Exon 33 | Start: 171699 | End: 171822 | Length: 123
 BE AWARE: Flanking intron is shared with the following exon

.
 taagcaactcattccccatgggtcttcagctgtaaaaagtcactttgcagtgactggaaac

 ttacattaaaatacggaaaataattagagttacaatagctagtacaatcatattgttat

 atctttataatttgaaatttaaagctgtttgatatatgtagagtttatatatggatgcaa

 aaccagtctatactataccatgggaagtttgaaggcaagtcaacttttgaatattactta

 ttttaaaaacaaaagacatttgtgctgagccttttctaaatcactgctcattttcca

|3971	|3981	|3991	|4001	|4011	|4021
ACATCAATGAATGTGAAATTGGAGCACACA	ACTGTGGCAAACATGCTGTATGTACCAATA				
I N E C E I G A H N C G K H A V C T N T					
	|1331				|1341

|4031	|4041	|4051	|4061	|4071	|4081
CAGCAGGAAGCTTCAAATGTAGCTGCAGTCCCGGGTGGATTGGAGATGGCATTAAAGTGCA					
A G S F K C S C S P G W I G D G I K C T					
	|1351				|1361

.
 CTGgtgagtaggaaagtaacagaggttgcttatcaaggactgcatagattacacatatga
 D

. . .
aaatattaattatgtaa

Exon 34 | Start: 171972 | End: 172095 | Length: 123
BE AWARE: Flanking intron is shared with the previous exon

.
agttattttaatttgtgtattattggttttaataaccacccttctgttaataatgatat

. . . |4091 |4101 |4111 |4121 |4131
aacctttttctataaATCTGGACGAATGTTCCAATGGAACCCATATGTGCAGCCAGCATG
L D E C S N G T H M C S Q H A
|1371

|4141 |4151 |4161 |4171 |4181 |4191
CAGACTGCAAGAATACCATGGGATCTTACCGCTGTCTGTGCAAGGAAGGATACACAGGTG
D C K N T M G S Y R C L C K E G Y T G D
|1381 |1391

|4201
ATGGCTTCACCTTGACAGgtatgttcacgctggaaacaactgtgtcaacactagtcagag
G F T C T D
|1401

.
aagccaggcattccacatttctcaggctagcaattcttttttgaagactgggtcaggttaa

.
tagaaaagattcatcatttggcactagagctctgtgggaaaaaaaaaattggaaccaggt

.
caattagggagacctcaaaagcttctcgataggtagatacgtaggtagatagatagatag

.
atagatatatttaggtgccattatcacatcatttacagtgatctgtgctctaacataaaatg

.
ataccaaaaaagtcatac

Exon 35 | Start: 173673 | End: 173799 | Length: 126

Exon 36 | Start: 175593 | End: 175716 | Length: 123

```
. . . . .
ttgcctcttactttacgaaagtgatgtggacctacgtggaacactacaaatgagatatgt
. . . . .
atctataaaatgctcagcccgtgcttggcatgtaatagagactgaggaaaagtaacctc
. . . . .
tcacctacgagacttcactgtgcatggcaaatacatctaaaagtctataggagaagtgcc
. . . . .
agattggtgtagatactctgcattttcttagtatttacattagttgcctaattatatt
. . . . .
ggcaggttttttttagaaaaatataagttaagtttttgctttttctccctcccccaa

|4341      |4351      |4361      |4371      |4381      |4391
ATATTGATGAGTGCTCCCTTCCGAACATCTGTGTCTTTGGAACTTGCCACAACCTCCCTG
I D E C S L P N I C V F G T C H N L P G
|1451                                |1461

|4401      |4411      |4421      |4431      |4441      |4451
GCCTGTTCCGCTGTGAGTGTGAGATAGGCTACGAACTGGACAGAAGCGGCGGGAAGTGCA
L F R C E C E I G Y E L D R S G G N C T
|1471                                |1481

CAGgtaagacctccactggcatcaaatcagctccctggtgtcccgggggacctcagctat
D
. . . . .
tggagcctccctgggactacacaagggccgtcacagaagacaagaaaagcaagggggaag
. . . . .
tattaagaatcacagataccttttctcagacctggaactgattggaggtgaggatccaga
. . . . .
ggaaagagtctaagacaattgaaggagcacagttttagccttgaaattgagtttgggc
. . . . .
tcaaaggaatgttctaggggtgctctagtgggtgtagcttcccagccatttccttttcta
```

.
ctt

Exon 37 | Start: 177815 | End: 177938 | Length: 123

.
cggcctcccaaagtgctgggattacaggcgtgagccaccgtgcccgcccaaagttatat
.
tttatcctgatgacaaaattgaatggtaaagtgttctggggaaagaccaccaaagacta
.
tatcatatttccttctgaggtgttttatctctgaagtggaagactgcatttctagatgt
.
agttataactagtagctttaaaattcttgtttggagctctagattgggccctgttctttt
.
atggtgatgtctgcctacactggctcaggtgataactccactactcactgttcggtttta
|4461 |4471 |4481 |4491 |4501 |4511
ATGTGAATGAATGCCTGGATCCAACCACGTGCATCAGTGGGAACTGTGTCAACACTCCAG
V N E C L D P T T C I S G N C V N T P G
|1491 |1501
|4521 |4531 |4541 |4551 |4561 |4571
GCAGCTATATCTGTGACTGCCCACCTGATTTTGAAGTGAACCAACTCGAGTTGGCTGTG
S Y I C D C P P D F E L N P T R V G C V
|1511 |1521
|4581
TTGgtaagaccttaaaaacttttcagagaagcaagcatactgtgtattattttgaaaaca
D
.
gcaccaaacattccattctcaaagtttgcaaaatgaatgatacagaaatttaaacatttc
.
ctaactctacttttagattcagatatcttttccatagggaaaattctcggtagtgtataat
.
gttcatgggcacttttttagtttctcagtaaaagtaaattacgggtttttgaacagttcctg

.
aagtgggtttgaattttcaaccccagtagaaaagattctgcctgatgcttttgtgttgta
.
tat

Exon 38 | Start: 178247 | End: 178412 | Length: 165

.
ttaaaaacttttcagagaagcaagcatactgtgtattattttgaaaacagcaccaaact
.
tccattctcaaagtttgcaaatgaatgatacagaaatttaaactttcctaactctact
.
ttagattcagatatctttccatagggaaaattctcggtagtgtataatgttcatgggca
.
ctttttagtttctcagtaaaagtaaattacgggtttttgaacagttcctgaagtgggttg
.
aattttcaaccccagtagaaaagattctgcctgatgcttttgtgtttgtatatggtaaata

|4591	|4601	|4611	|4621	|4631	|4641
ATACCCGCTCTGGAAATTGCTATTTGGATATTCGACCTCGAGGAGACAATGGAGATACAG					
T	R	S	G	N	C
	Y	L	D	I	R
				P	R
				G	D
				N	G
				D	T
				A	
|1531			|1541		

|4651	|4661	|4671	|4681	|4691	|4701
CCTGCAGCAATGAAATTGGAGTTGGTGTTCCTGCTGCTGTTCTCTGGGTA					
C	S	N	E	I	G
	V	G	V	S	K
			A	S	C
			C	C	C
			S	L	G
			K		
|1551			|1561		

|4711	|4721	|4731	|4741	.	.	.
AAGCCTGGGGTACTCCTTGAGATGTGTCCTGCTGTAACACATgtaagtggacatcct						
A	W	G	T	P	C	E
	M	C	P	A	V	N
				T	S	
|1571			|1581			

.
cctatttattattatttcaactccagccagttctcctttctagatcagaagacaaacctt
.
ttctactcttagatcagagaagaagatcagtcctctcagccctgtagaggggaccttat

.
 tcccaattcgagagtcagaaaaatattcctggttggtcacactaaaagatcaggtagggc

 aggtaacatctcacttctgtgtaagtgaaaagcagatagcattactttaagattttcca

 gactagggtactttcaccatggttgcttacgttccaggacacatt

Exon 39 | Start: 180491 | End: 180560 | Length: 69
 BE AWARE: Flanking intron is shared with the following exon

.
 ctgtaaaaagaaataagggatgaaggtaaggtataaaacagtccacacacatgtaagacc

 agggagtggtagagttcaaggactgaggacagtggccttgactggggacacataataa

 aaaccactggaaaatgggaagtgtacacaaaggtgttaacttacttcagacgggcagagt

 aacaactaaagattcctgaaaatgaacattttcagttggatatgtgagtatttctcttga

 ggatactattttctaaaaacttttagattcaaaacaactcaatttgaattttgtttcaata
 |4751 |4761 |4771 |4781 |4791 |4801
 CCGAGTACAAAATTCTTTGTCCTGGAGGGGAAGGTTTCCGACCAAAATCCTATCACCGTTA
 E Y K I L C P G G E G F R P N P I T V I
 |1591 |1601
 |4811
 TATTGGAAGgtaattgtgtttcctttgtcttaaagcacacacaacttgaatttcc

Exon 40 | Start: 180656 | End: 180782 | Length: 126
 BE AWARE: Flanking intron is shared with the previous exon

. |4821
 ttgggtttatttacaatgctaaaggaatgcctttgttttgattttgataATATTGATGAG
 I D E

ATGTGAATGAATGTGAGACTCCTGGAATCTGTGGTCCAGGGACATGTTACAACACCGTTG
V N E C E T P G I C G P G T C Y N T V G
|1651 |1661

|5011 |5021 |5031 |5041 |5051 |5061
GCAACTACACCTGTATCTGTCCTCCAGACTACATGCAAGTGAATGGGGGAAATAATTGCA
N Y T C I C P P D Y M Q V N G G N N C M
|1671 |1681

TGGgtaagtccaagcttttctcagtaatgcatgtttgggttctcatctacaagaggaaga
D

gagctcacaagttcatcaccttagggtgatgttactcatcagactgagtgtgcatccc

ttcactgtcttgtaggagactcttcccctataaatcataacttggcattttttcaccac

cacgggtgggtgggtgggagttttctctaaaatgtatgttggaatcccaaacaacagt

taatagtacttcttttggttgacttttgggtgtatctttgtacaattatattacagtgc

tga

Exon 42 | Start: 183109 | End: 183268 | Length: 159

agggaattgttactaggagactgggcagagagtcatttaaagtttattaatgctacagct

atataatgacttagttctgtggcatgaaatatcagggaatgtatttctcaaagtccttta

tcttgtagcagcataggtagctagaaagttgtgtaagagcaagtttttgtgtccttatc

aaagtcaagctacaatacaattcaaatgaaacttgcttggtgagtatccacttagaaatt

tgttgtgatttcccacatggcatcaccaaccctccaatcctttttttacctcccttcta

 |5071 |5081 |5091 |5101 |5111 |5121
ATATGAGAAGAAGTTTGTGCTACAGAACTACTATGCTGACAACCAGACCTGTGATGGAG
 M R R S L C Y R N Y Y A D N Q T C D G E
 |1691 |1701

 |5131 |5141 |5151 |5161 |5171 |5181
AATTGTTATTCAACATGACCAAGAAGATGTGCTGCTGTTTCTACAACATTGGCCGGGCGT
 L L F N M T K K M C C C S Y N I G R A W
 |1711 |1721

 |5191 |5201 |5211 |5221 . . .
GGAACAAGCCCTGTGAACAGTGTCCCATCCCAAGTACAGgtgagtttttagtttctccatt
 N K P C E Q C P I P S T D
 |1731 |1741

. .
atcaaaaatataggttgaaaaattacccatgaattgttggggaaatcagtcttagcgaag

. .
gaagcaaagtgtgcattgtttatctttacagggaacacggctcatgatttaaattca

. .
cagttggtgctggtcattccagccgaacactgagtcacagaatatgttttctaattgata

. .
ccctaatacgttaaccagacttgttagactcagcatatcacaaaaatataaactataaacia

. .
tgttctcattgttactgaattcttcatgtatctaaaaga

Exon 43 | Start: 186032 | End: 186104 | Length: 72

. .
ataacatccatattgaaatccaaactcctacaggtaaaactcatgtgaatgagtggtcatgt

. .
gatctggggatctctacttctccttcattatcacgtcaacattaggtcatttttttcttc

. .
aatatttgccttacaggcaagattatatctgtaggaattttcaggtttactttttatttt

. .
.

aaattcttcaaactacagacaaatacctttcaagaatgcttacaaaataatTTTTTcag

 tccaattattgttctttgctgacccctatcctcccatcccacctttgtttaatcattgca
 |5231 |5241 |5251 |5261 |5271 |5281
 ATGAGTTTGCTACACTCTGTGGAAGTCAAAGGCCAGGCTTTGTCATCGACATTTATACCG
 E F A T L C G S Q R P G F V I D I Y T G
 |1751 |1761
 |5291
 GTTACCCGTTGgtgagtcatgacggcattgtcagaactttctgggtttttgcctttgtg
 L P V D

 ttagcattatTTTTTcagttcccatTTTTTcttaaaggaaaaaaatattaacaatgc

 ctttcactttattgaaacactgattcttagtttgaaacaaactgtgcaaacaccctgtgc

 agctccacctaattggcaacaacatttggtgttcatgattaaggggattggaaagctttt

 cccaaaattacaatcaagcatagttacaccaaccttaggcacatggggagagattc

 tgggagtggggc

Exon 44 | Start: 189587 | End: 189713 | Length: 126

 catctggtgcatccacagtgccagaggatacaaagatatctcctacctgtacaaaattg

 acattctgaagcaaaaccagaacatatatttaaattccagtttagactcatgtctggaaag

 tggtttagttatctcaatttgctattcggttgatgtccctattgccatcaccaccaccca

 acacatgcacgcacacacacacacacacacacacacacgcacgcactttccatcttgt

.
cttaccctgcacagggatcatgtgctgtcctgtcactcatgaatgactactctgtctcta

 |5301 |5311 |5321 |5331 |5341 |5351
ATATTGATGAGTGCCGGGAGATCCCAGGGGTCTGTGAAAATGGAGTGTGTATCAACATGG
 I D E C R E I P G V C E N G V C I N M V
 |1771 |1781

 |5361 |5371 |5381 |5391 |5401 |5411
TTGGCAGCTTCCGATGTGAATGTCCAGTGGGATTCTTCTATAATGACAAGTTGTTGGTTT
 G S F R C E C P V G F F Y N D K L L V C
 |1791 |1801

 |5421
GTGAAGtaagtggcatcatgactttatcatatccagaaaagagctaactgatgagctac
 E D

.
ttgatacacacttggcgaatttcacaacattgaaatttcagaaatgcattaagctctaga

.
aatagtaaaggcatggtgtggaacaacatgaaatttcagcaaaaaaaaaaattcact

.
aacttcagtggaaaaaccaggaggcacattcccagcccctttccccaacacacagtgtg

.
ttaatattagacttcccagctgatatgaaaaagctttgagttcctgggtgtgtcacatag

. . .
attgct

Exon 45 | Start: 193665 | End: 193788 | Length: 123

.
cgcacctggccatatttaattttcttccatgtcttttcattgcttgatagctcatttctt

.
tttagtgctaagtaacattccattgtctgaatgtaccacagtttatttgtaattcacct

.
atcgaaggacatcttggttgcttccaaattctggcaataaataaagctgctgtacacatc

.
tatgttgctcttttcaatagaacagatcaaaataaaatataaattgttttcatgtgagag

.
gctttgttgactggacaccagattctgttctccttcaaattcagttctcttctgctcgta

 |5431 |5441 |5451 |5461 |5471 |5481
ATATTGACGAGTGTCAGAACGGCCCAGTGTGCCAGCGCAACGCCGAATGCATCAACACTG
 I D E C Q N G P V C Q R N A E C I N T A
 |1811 |1821

 |5491 |5501 |5511 |5521 |5531 |5541
CAGGCAGCTACCGCTGTGACTGTAAGCCCGGCTACCGCTTCACCTCCACAGGACAGTGCA
 G S Y R C D C K P G Y R F T S T G Q C N
 |1831 |1841

.
ATGgtatgtagtgccccacaggctggacatgcctaccaagagtttgtcttcatgaagct
D

.
tcagatatctggatttattttcagatagttaagctgaagaatatatgagttaagatttag

.
attgatgaactctaataattaaactaaattggaaaaagggatattgtcaaaatatctaac

.
acttagctttttaatcctcttttctggatgagatattttcaaacaagaagtaaatcattc

.
gcatacatagatttcgtatttgctgtctgctgccctgcctgcaaactcacccccaca

.
cat

Exon 46 | Start: 197456 | End: 197582 | Length: 126

.
taatcaaacagaaaatcctccggcttgaatcccccatcttacttctaagttttctcat

.
ctttcagaatatTTTTTgattacttacccttatttttattgtgtcaagtattgttaaca

.
 tactctgactatgcctggtaaatagagtaagttttaatccattttgatgcaaaaataaa

 tataatctgtttcactaacttagtttagagctaggattactcctgagaatgatagctagaa

 gtaagttattcaattatattttgtcttctaagttctcacttaagatgcttcttatttaca
 |5551 |5561 |5571 |5581 |5591 |5601
 ATCGTAATGAATGTCAAGAAATCCCAATATATGCAGTCATGGGCAGTGCATTGACACAG
 R N E C Q E I P N I C S H G Q C I D T V
 |1851 |1861
 |5611 |5621 |5631 |5641 |5651 |5661
 TTGGAAGCTTTTATTGCCTTTGCCACACTGGTTTAAAACAAATGATGACCAAACCATGT
 G S F Y C L C H T G F K T N D D Q T M C
 |1871 |1881
 |5671.
 GCTTGGtaagtatgcaattattattattttttcatatgctgttgaaagcttcatttga
 L D
 |1891

 ttctaaatatggataaaatttaataactaagtccttttagtagtatttttgctatatacaaa

 ataaaaacacagacagatatgcagcagtgatatcctatttaatctttggcaatctgaaca

 tgataaacctcttcctttgttattcatttggctgtcagtttagaaaaattgactaaggg

 gtaaattgaaaaagatattaatacaaaaatattaatgttaataggctattattcatatgt
 . . .
 aatatt

Exon 47 | Start: 199527 | End: 199644 | Length: 117

.
 tggcaagggtggagaattctagaagtaaatagaataaaataattcttgttcaggtctcat

.
 gtccttagcttgccctcctttcactggccagccaaggaaccatttattcccaagatttag

 agctttgccgctgcctggatatcttgaggatgactgctgctggagctgataccaacatc

 aagaagttctcagcctatggatgaggcctggtgaaccctaaaatgctcttttagccactgt

 aaccgtgtaaccactttttctacttataattatgtttctttatggcctttcttcctacta

	|5681	|5691	|5701	|5711	|5721	|5731
ACATAAATGAATGTGAAAGAGATGCCTGTGGGAATGGAAGTGGCGGAACACAATTGGTT						
I N E C E R D A C G N G T C R N T I G S						
		|1901				|1911

	|5741	|5751	|5761	|5771	|5781
CCTTCAACTGCCGCTGCAATCATGGTTTCATCCTTTCTCACAACAATGACTGTATAGgtg					
F N C R C N H G F I L S H N N D C I D					
		|1921			

.
 cgtgtgcaaaattgtgcatcagcaaaggaagtgcagttttatatgtgttctttgtaattag

 catcatctctagtgttccagctgtcttttaaaaatgtatgctatcttatgcataacaatt

 ggttatgggacttgtcaaatacaatgtgctcaacatgaaatatattacagaagtctcccc

 ttatccgtgagggatacattctgagacccccagcagatgcctgaaaccacagatagtact

 gaaccctctatataccatgttttttctacacatacatcctaaagttaatttata

Exon 48 | Start: 200845 | End: 200974 | Length: 129

.
 ttttaaactctaaaatttaaaaataaaatctaaaggaaaatcaaggaaaaactgataggaa

 atttgaatgtaaattgtcagtcctctaatataataatgtaatcttattgttaaattgtgtat

.
 aggtgcttaaagccagttctgttggtgcaaactagatcttcattggcatttcttgtttgg

 ctaagccagcaaaggccactaaaattcagaaaaagtatttttcttttagaagttttgat

 tattgctgggattatgacatctttggaatatattaaaggattgttggggatttttctgca

 |5791 |5801 |5811 |5821 |5831 |5841
 ATGTTGATGAATGTGCAAGTGGAAATGGGAATCTTTGCAGAAATGGCCAATGCATTAATA
 V D E C A S G N G N L C R N G Q C I N T
 |1931 |1941

 |5851 |5861 |5871 |5881 |5891 |5901
 CAGTGGGGTCTTTCCAGTGCCAGTGCAATGAAGGCTATGAGGTGGCTCCAGATGGGAGGA
 V G S F Q C Q C N E G Y E V A P D G R T
 |1951 |1961

 |5911
 CCTGTGTGGtaagtacaggacttagaaagacctggaaagaatgcttccagagaccactc
 C V D
 |1971

 aaggaatcatgcagtctctgttctaagtcttctttctggaacctggaggaaaagtcaga

 gtagaattatattaatcctccctataaaggcttgtttttatttaagtatatatacacata

 tatatatgtatatatatatacatatatatatgtgtgtatatatatatgtatatatatatg

 tgtgtgtgtatatatatatatatgtgtatatatatataatcactttttcccttattttaa

 . .
 aaattaagc

Exon 49 | Start: 201689 | End: 201809 | Length: 120

.
 gctctcatatcttttgagtatccttaaaatctatatactcactgacttttcacatgctac

.
aattttctggaacatttaatttgatgcaggtaaataaaatatggttgttatgctatac
.
atttttgaaagctgataaagcttatttttattattgcttatttttctccatggtggaatt
.
ttatgaactttaatttgctttatgtatttctttgattcattctagttttttgaatttta
.
attgtttgatggaagtcatgccagtgaggaaacctcttcttatttttcccttttctttgca

|5921	|5931	|5941	|5951	|5961	|5971
ATATCAATGAATGTCTTCTAGAACCCAGAAAAATGTGCACCAGGTACCTGTCAAAACTTGG					
I	N	E	C	L	L
		E	P	R	K
			C	A	P
			G	T	C
			Q	N	L
					D
		|1981			|1991

|5981	|5991	|6001	|6011	|6021	|6031
ATGGGTCCTACAGATGCATTGCCCCACCTGGATACAGTCTTCAAAATGAGAAGTGTGAAG					
G	S	Y	R	C	I
		C	P	P	G
		Y	S	L	Q
			N	E	K
					C
					E
					D
		|2001			|2011

.
gtaggaaagctatcagttgtagcaaatgaggagtggtcggtgtccactggacttagcaga
.
atgagaatttttgtaatgacgtcttcattttggaatactttatcagaaacaaatgcaagg
.
gcataggtatgacatggtctcatccttctggcaagacaagaagcactaattatcatgcta
.
atctctaataagttattttgttctgtgcatatgactgatcatatgatcctgactctttt
.
ccactgtgctttcacacatttgtaggaatgctgtgtcctactcccagttattccgaact

Exon 50 | Start: 204503 | End: 204629 | Length: 126

.
gaaattactctgacttttctagtttagccaagcaactcagtcctgggtaagagacgtttgtc
.

actgcaccccttagaaggcagttgcacattccatttttatatcaataactgtcaaaacta

.

attcttttgaagtcatgacaacctagaagtcagtcacagtggttatggtacagaaaaat

.

acctttattattgtaagagtttggaactcagttgcccttgtgtgtccacattgtgtgt

.

ttggtacctgatgatgtctccatcgtgttttgactttgtttgactcatgtgattctttta

.

|6041	|6051	|6061	|6071	|6081	|6091
ATATTGATGAGTGTGTCGAAGAGCCAGAAATTTGTGCCCTGGGCACATGCAGTAACACTG					
I D E C V E E P E I C A L G T C S N T E					
	|2021				|2031

.

|6101	|6111	|6121	|6131	|6141	|6151
AAGGCAGCTTCAAATGTCTGTGTCCAGAAGGGTTTCCTTGTCTCCAGTGAAGAAGGT					
G S F K C L C P E G F S L S S S G R R C					
	|2041				|2051

.

|6161	. . . . .
GCCAAGgtaagtgctttgaaggctttgggctttcaatgctgcatgtttatttgtggtgg	
Q D	

.

tcttatttttcaaacatggcaaagctctgtttctttgtgaacaggaagatggagagtttt

.

cattcaccagaggtctaataataaccatgtgcagaaggttcattttcacttttaaggt

.

taaaaactcatccatcaagttatggttgcttatacaattgtactgacacataaacctctc

.

tcccactaagaacacaaatgctgataggcccatcagtggggaaacaccttgagccaccga

.

aacagc

Exon 51 | Start: 208432 | End: 208582 | Length: 150

.

Exon 52 | Start: 208962 | End: 209028 | Length: 66
 BE AWARE: Flanking intron is shared with the following exon

```

. . . . .
aagacagtaacacaatttaatttaattgtaagtctaattagaatgttcattaaaaattat
. . . . .
tttatctcaggagcttggtagttatcttttcttttaattatgtcatgaatcacagatgcc
. . . . .
aaggagtagacacaacatcttagggagtctcgtaaataacttcctctggtttctgggct
. . . . .
tgtttttccatcatttatcaatatgcacagcatgtagcaattttctacctcaaatact
. . . . .
tgtggagaagcttgtaatgaattgctattgttctatctattaatgagtgtctccaccaca
      |6321      |6331      |6341      |6351      |6361      |6371
AGGCCTTCGCGCAGATATGTCCTTATGGAAGTGGGATCATCGTGGGACCTGATGATTCAG
  A F R Q I C P Y G S G I I V G P D D S A
                |2111                        |2121

```

```

. . . . .
CAGTTGgtcagttgcctgtgctggattctcagcatttctcagtattctcaatctgcttct
  V D

```

```

. . . . .
tctctagttattcttatttttctccatctatcttggaataaagtgtacttttttctc
. . .
ccttca

```

Exon 53 | Start: 209272 | End: 209389 | Length: 117
 BE AWARE: Flanking intron is shared with the previous exon

```

. . . . .
tttagatagcaattatattattgcattattagataatcttttgattaaacactgaaatga
. . . . .
tcataatttatcttcacgttttaaaaaataccttgttattcactatcttttttctcttgct
.   |6381      |6391      |6401      |6411      |6421      |6431

```

taaATATGGACGAATGCAAAGAACCCGATGTCTGTAAACATGGACAGTGCATCAATACAG
M D E C K E P D V C K H G Q C I N T D
|2131 |2141

|6441 |6451 |6461 |6471 |6481 |6491
ATGGTTCCTATCGCTGCGAGTGTCCCTTTGGTTATATTCTAGCAGGGAATGAATGTGTAG
G S Y R C E C P F G Y I L A G N E C V D
|2151 |2161

.
gtgagtaataagttttcttccataggaactttacaaattaaataagctatacagtat
.
tcactgtatagccatgaatataggtaccaagatggcactgaaataagttttatccatcca
.
ctcacatcattcatttagaatactagtgagtcacccatcagggtcccaggcactgtgtcta
.
ggctctggagctgcagcactgaaccacaaagacaagttccttcctttcatggaccttaca
.
gcctaatggtgaaggcagacactggacatatcagaagagatactagaaaggacaacatca

Exon 54 | Start: 211636 | End: 211756 | Length: 120

.
gaccagcctggccaacatggcgaaaccctgtctctactaaaaatacaaaaattacctgag
.
cgtggtgatgtgcaccataattccagctactcaggaggctgaggcatgagattcacttg
.
aacctgagaggcagagtttgcatgagctgaaatcgcgccacagcactgcagtctggatgt
.
caaagtgagactctgtctcaaaacaacaacaacaaaattacagttttaaattcctctg
.
atagaataaaaaggtattatctcaattcatcatgttttggacacattcctggtttcttgca

|6501 |6511 |6521 |6531 |6541 |6551
ATACTGATGAATGTTCTGTTGGCAATCCTTGTGGAAATGGAACCTGCAAGAATGTGATTG
T D E C S V G N P C G N G T C K N V I G

	|2171		|2181
|6561	|6571	|6581	|6591
|6601	|6611		
GAGGTTTTGAATGCACCTGCGAGGAGGGATTGAGCCCGGTCCAATGATGACATGTGAAG			
G F E C T C E E G F E P G P M M T C E D			
	|2191		|2201

.
 gtacatctcttaaacagagaacagttgattacgtgtactgatcctgggaacaattggttg

 attacaagtccttaatatataaatacaactcagggtgtatataataaagatcatctaggcct

 gatgggccatttgatcattcttctttgtggcctcttctctgtagggaagagagatatc

 caagaatgatacagttgtgtgttcattggcacatctacactgtatatcacagagagttctc

 attggtgtttccctaccacttatatttagatgcttccgtgtgtttaataccttctttct

Exon 55 | Start: 213361 | End: 213484 | Length: 123

.
 tgttgggtggcctgtaatttcccatccacctaataatcataataattataaccaggaca

 acaaacataaactgggactgtgctgggagaaccgggatggagagtcactctgtttatacc

 aaatataaaataatcaaccattttataatttccgggaaatgggagaccacttgatccat

 ccatgtttatgacaatgaagcattgcaacttttggtaaagtttagagttttagttcaat

 tggtaggttcccttttggtgctgtccatgatcccttatttacttactctcctctgctgca
 |6621 |6631 |6641 |6651 |6661 |6671
 ATATAAATGAATGTGCCCAGAATCCTCTGCTCTGTGCCTTCCGATGTGTGAACACTTATG
 I N E C A Q N P L L C A F R C V N T Y G
 |2211 |2221

E D E C E E G K H D C T E K Q M E C K N
 |2251 |2261

 |6801 |6811 |6821 |6831 |6841 |6851
 ACCTCATTGGCACATATATGTGCATCTGTGGACCCGGGTATCAGCGGAGACCTGATGGAG
 L I G T Y M C I C G P G Y Q R R P D G E
 |2271 |2281

 |6861 |6871.
 AAGGCTGTGTAGgtaagaggatccctgtggaaggagctttgagtgcatacagaagtgcacag
 G C V D
 |2291

 tggacagaaggaacctgggctctgagttcttgggatactgttcttggcgagaccatttt

 gttctcttaaccgcatgtcaggactctccatgggtggtcccttgccctcgtgatcatttgt

 gaattccaagagcactgtcattgtccctctgatctggcctttgtctgctttcttgacca

 tttgctgccaggatttgaacagcatgccttttctctattctcctcctttactttccatac

 . . .
 tcttttgttgat

Exon 57 | Start: 217878 | End: 218004 | Length: 126

.
 ggctctttctgttttcagtctttcaatgaaaccaaacagttaagaatgaattgaagtctc

 ttttataccttttaaatTTTgagccatgtgaacagattagtattcaaaagctaagtta

 gaaggaaagatgtgagagagggaaggaaggtgagagggagggaagggaaggaaagga

 gaaaggaacaaagggaagggaagggaagggaaggaaggaacgaaggaaggagctcc

 atcctctataaaatgggtcagatgactcttcttgtttttggtccttcaataaaatcaaaca

	|6881	|6891	|6901	|6911	|6921	|6931
ATGAGAATGAATGTCAGACGAAGCCAGGGATCTGTGAGAATGGGCGCTGCCTCAACACCC						
E N E C Q T K P G I C E N G R C L N T R						
			|2301			|2311

	|6941	|6951	|6961	|6971	|6981	|6991
GTGGGAGCTACACCTGTGAGTGTAAATGATGGGTTTACCGCCAGCCCCAACCCAGGACGAGT						
G S Y T C E C N D G F T A S P N Q D E C						
			|2321			|2331

GCCTTGgtgagtacagttggcaccgcactttcctaacctcagcctccacactgggatgct
L D

ggaaaccagacttcttattttaaatacaagaaaatgtcaaaatctgaggaaggataaaa

aatgttcataatgttgagatgccgtaatgactgtgattgtccattgggctcagcaccacc

ctgcagctaaattcttcctttgctaattggatcctgaatcacttgtttggaatttcttgg

ctgcctttgaagcccttggatgatcaggatccacttccgtatgtttctctgcccctctgtc

tgtaag

Exon 58 | Start: 218576 | End: 218783 | Length: 207

gtatgtttctctgcccctctgtctgtaagcatggctattcccctgtatttctgggagcag

agagagttataagcttcttaggccaatgtctttctgcctacttactgaatgtcttattt

gtttccctcagacgtcatcctttctcttttactgctgtctccagctttcccctcttgctt

cttctcaccagggtaaagtgttacatccttttttggtttttatatctgaccaaattttt

.
aatattttgtttgctcttaaaatttcctgacatcccctttgccatataatgtcccttcca

 |7001 |7011 |7021 |7031 |7041 |7051
ACAATCGGGAAGGGTACTGCTTCACAGAGGTGCTACAAAACATGTGTCAGATCGGCTCCA
 N R E G Y C F T E V L Q N M C Q I G S S
 |2341 |2351

 |7061 |7071 |7081 |7091 |7101 |7111
GCAACAGGAACCCCGTCACCAAATCGGAATGCTGCTGTGACGGAGGGAGAGGCTGGGGTC
 N R N P V T K S E C C C D G G R G W G P
 |2361 |2371

 |7121 |7131 |7141 |7151 |7161 |7171
CCCACTGTGAGATCTGCCCTTTCCAGGGGACTGTGGCTTTCAAGAACTCTGTCCCCATG
 H C E I C P F Q G T V A F K K L C P H G
 |2381 |2391

 |7181 |7191 |7201
GCCGAGGATTTCATGACCAATGGAGCAGgtacttcatttatagtccaaaaatacttgcagg
 R G F M T N G A D
 |2401

.
gaatctattttttgtttttgtgtgaaacacagatgaaaatatggagtttgcaatatgt

.
gcctaggttgaattgcacagctgaggccaacaaaattcttcattatggagttttagaca

.
tttgaggtcatgctgccaagtggccttggtccacttgattaagctgtgtgtgcttagga

.
ccctccctctgcattccagcgagtcttcaactttttaaacgtttactataagtcaattg

.
gctactcagaatataatttttaattt

Exon 59 | Start: 220485 | End: 220611 | Length: 126
BE AWARE: Flanking intron is shared with the following exon

.
tagatgggggtggctgttctatggatccagaagagaaaaatatacatttagaagaccagtt

```

. . . . .
gtttttaaaagtttttctgtggctgaattattttatcaattgtagtctaataagttattt

. . . . .
gtttaccttttgatatagctactgttacatattaaatttatgctgtcatcttactggttt

. . . . .
aatctttaggcccaaatatagtaacacaatttattagttactgaagtgacccc

. . . . .
ctacatattaatgttgtaattttatgatatttcttaatttatattgttaaattaca

      |7211      |7221      |7231      |7241      |7251      |7261
ATATCGATGAATGCAAGGTTATTACGATGTTTGCCGAAATGGGGAATGTGTCAATGACA
      I D E C K V I H D V C R N G E C V N D R
                        |2411                        |2421

      |7271      |7281      |7291      |7301      |7311      |7321
GAGGATCATATCATTGCATTTGTAAACTGGGTACACTCCAGATATAACTGGGACTTCCT
      G S Y H C I C K T G Y T P D I T G T S C
                        |2431                        |2441

GTGTAGgtaagtgctatcttctgatggcttatcctcaagtggaaatttagattatggaa
V D

. . . . .
aaaaaaaaacccaaagctaaaaatctaaaaagctgtgcagtttcataggaaagcacagg

. . .
acaatcat

```

Exon 60 | Start: 220858 | End: 220981 | Length: 123
BE AWARE: Flanking intron is shared with the previous exon

```

. . . . .
caaagcttacacagagtttccttttctttccccgaaactaaaattcttcgtttagaccct

. . . . .
gtggaaattgagcgtgtacacatcatttttagatgcacagtcacgctgtatttctttgat

.   |7331      |7341      |7351      |7361      |7371      |7381

```

cataATCTGAACGAGTGCAACCAGGCTCCCAAACCTGCAATTTTATCTGCAAAAACACA
 L N E C N Q A P K P C N F I C K N T
 |2451 |2461

|7391 |7401 |7411 |7421 |7431 |7441
 GAAGGGAGTTACCAGTGTTCATGCCCGAAAGGCTACATTCTGCAAGAGGATGGAAGGAGC
 E G S Y Q C S C P K G Y I L Q E D G R S
 |2471 |2481

|7451
 TGCAAAGgtaaagtagaattgaccattgcccctcacctagctcctgacacatggctgcat
 C K D

.
 tcctttgcctgtaagaactccacaggcaagccgaaagacctgctctacaggcaggaggtg

.
 cttccctgggggttaatgcctccatgggacctacctcctgtgctggagggaaggaggctaa

.
 agccaggagattgtggaggaagcagctgtccttgctgcatccccctgggcatccatgg

.
 tggccatccatgactgtctcagagatagcagggccagcttcaatggctctggtggggcag

. . .
 attctta

Exon 61 | Start: 224281 | End: 224398 | Length: 117
 BE AWARE: Flanking intron is shared with the following exon

.
 atgatttatttgaaattcctttgttgaggaaattcctgcatttctccaattagaattgtgt

.
 tttcttggatcccctaagatctctttatattttttgaggggaggagggtctaaattga

.
 caccttgttttatctttcagatctttaccccctgtgtctctccttgccttttgctgtggc

.
 ttctttctagtcagggtcatttgagacctccaaatcaaactggagctgcttcatagggt

```

. . . . .
cagcttccctgatcctgttttggttgactcaaagcctctcttgcatTTTTcttgta

      |7461      |7471      |7481      |7491      |7501      |7511
ATCTTGATGAGTGTGCAACCAAGCAACACAAGTCCAGTTCCTATGTGTTAACACCATTG
  L D E C A T K Q H N C Q F L C V N T I G
      |2491                      |2501

      |7521      |7531      |7541      |7551      |7561
GCGGCTTCACATGCAAATGTCCTCCCGGATTTACCCAACACCATAACGTCCTGCATTGgtg
  G F T C K C P P G F T Q H H T S C I D
      |2511                      |2521

. . . . .
agtaggagaggaaaaaatcctacatggattgtagcgattctttaagggattattttcta

. . . . .
tttctctgctgttgggataagaaaataaaagctcaaagaaatatatgagtgcatgtatg

. . .
tgtgagcac

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Exon 62 | Start: 224663 | End: 224792 | Length: 129
 BE AWARE: Flanking intron is shared with the previous exon

```

. . . . .
acctgtacatgtatgtgaagcgttgttgcccttatttggccttttccgagttatccttct

. . . . .
aattttcttttaaataacataagagagctttggggaattttaaccctctttgccccca

. . . |7571      |7581      |7591      |7601      |7611
ctgcttctcataATAACAATGAATGCACCTCTGACATCAATCTGTGCGGGTCTAAGGGCA
      N N E C T S D I N L C G S K G I
      |2531

      |7621      |7631      |7641      |7651      |7661      |7671
TTTGCCAGAACACTCCTGGAAGCTTCACCTGTGAATGCCAGCGGGGATTCTCACTTGATC
  C Q N T P G S F T C E C Q R G F S L D Q
      |2541                      |2551

      |7681      |7691
AGACCGGCTCCAGCTGTGAAGgtgggtggagacttcagctgcatccagctgggtgaatcc
  T G S S C E D

```

|2561

.
ttgtggaggtggcctgtgtggctattggcaccttcatcatcagcctctatgagatagcag
.
atctgagcccaggggggcactcagctaaaatagtgtgcacaggtcctgtatcttagagag
.
tcgtgttttgtttcatgcttgattgtgtctaacacacatgcctttcctaagtatatcaag
.
actttttctgctaagtttttaatttaacctaataggaataactcagtcaagaaaaatat
.
acttgattttgattcattaat

Exon 63 | Start: 225543 | End: 225663 | Length: 120

.
tggcaccaaaaataaaaaaaaaaagagcaaacacaaataacttataacttacagagctg
.
tcccagagagtgctttgggctttgcactaatttcctgacaatttttatttgtagactttg
.
ccagggtctctgaatgattttctccttgacttagcagcagttccagaagagagattct
.
tgaagtttttgggtgtagaataatgtgtaggatgtgtagggccagatttcttattagaa
.
tccatctggcttcagagagagatgttgagttggcatcatgggtggctctgcttcttttca

|7701	|7711	|7721	|7731	|7741	|7751
ACGTGGACGAGTGTGAGGGTAACCA	CCGCTGCCAGCATGGCTGCCAGAACATCATTGGGG				
V D E C E G N H R C Q H G C Q N I I G G					
|2571				|2581	

|7761	|7771	|7781	|7791	|7801	|7811
GCTACAGGTGCAGCTGCCCCAGGGCTACCTCCAGCACTACCAGTGGAACCA	GAGTGTGTTG				
Y R C S C P Q G Y L Q H Y Q W N Q C V D					
|2591				|2601	

.
 gcaagtaacttttctcactctcaagatgcatggctatcaggtcctatgaagcaaacac

 tgcttgcttttctgaagctgtaaatgtgttattgaagcaacaatactcatTTAAAttgC

 cctaacctggttgaaacccgaggtgaagtaacagtccttgcaaacagcaactaagaaaa

 aaaattataattgaggtgctttgagagcatctgaaatgaaatgccccagaatttcttg

 aagcgcaatatcctccaccctcccgtgcactgctagtcacagcccacacttgagttat

Exon 64 | Start: 230582 | End: 230814 | Length: 232

.
 tctgatgagaactggagtctgctggtcctcagaatgccatcctctaataGCCCTctgcctg

 gtgcatttgacttcatcttccatgtttcatcttccatgtttactcacaacatagcaagaa

 gccacatccatgcccgcatctttctctgctgttgctctccccaccagccacctctgcct

 gtcttaccttcctgagagcctagctgagggccagctggccggcagcaagtggccagatcc

 aatgtcctcaatagaaatctctggctgctgccacacatgccgcttcttattttgcctgca

|7821	|7831	|7841	|7851	|7861	|7871
ATGAAAACGAATGCCCTCAGCGCTCACATCTGCGGAGGAGCCTCCTGTCACAACACCCTGG					
E	N	E	C	L	S
		A	H	I	C
		G	G	A	S
				C	H
				N	T
				L	G
	|2611			|2621	

|7881	|7891	|7901	|7911	|7921	|7931
GGAGCTACAAGTGCATGTGTCCCGCCGGCTTCCAGTATGAACAGTTCAGTGGAGGATGCC					
S	Y	K	C	M	C
		P	A	G	F
		Q	Y	E	Q
			F	S	G
				G	C
				Q	
	|2631			|2641	

|7941	|7951	|7961	|7971	|7981	|7991
AAGACATCAATGAATGTGGCTCTGCGCAGGCCCCCTGCAGCTATGGCTGTTCCAATACCG					

D I N E C G S A Q A P C S Y G C S N T E
|2651 |2661
|8001 |8011 |8021 |8031 |8041 |8051.
AGGGCGGTTACCTGTGTGGCTGTCCACCTGGTTACTTCCGCATAGGCCAAGGgtaagcag
G G Y L C G C P P G Y F R I G Q G
|2671 |2681

.
tgctcttcctgggtcatggttgagattctttcattcgtaataataagtaactgaac
.
tcaaaattacctgtcctagcagaggagaacctgctttttgtaatcctaaaattaattcc
.
agttagcttggtgcaaaagtttttaggttattttatttgggaaggaagcatctggatttctgga
.
aacgtcaaacaagtaatgaaactacattgtaaatactctcgctatatgacttctctatct
.
tattctcttgatcttcacatcttgttggaagtattcatctctctgtaaat

Exon 65 | Start: 233606 | End: 233781 | Length: 175

.
ctcctccccagtataagttactgcaaaatgctttccatgttaggtttgggaatgaagagat
.
aaataaatatccaagacagggcttctgataggcagtagaaggaaatcaatacattcaggga
.
actgggaattagaggccaaacagaggacctcaatgtagttctcagaactagctgacctc
.
cagtggaagaagcaagggtgtatctcacaactgcaagggaacaggcttcaccagaactctt
.
gtaccacctaccttgtcttcccattctaataaaaaacatctatgctccccttctgctgca
|8061 |8071 |8081 |8091 |8101 |8111
GCACTGTGTTTCTGGAATGGGCATGGGCCGAGGAAACCCAGAGCCACCTGTCAGTGGTGA
H C V S G M G M G R G N P E P P V S G E
|2691 |2701

	|8121	|8131	|8141	|8151	|8161	|8171
AATGGATGACAATTCACTCTCCCCAGAGGCTTGTTACGAGTGTAAGATCAATGGCTACCC						
M D D N S L S P E A C Y E C K I N G Y P						
	|2711				|2721	

	|8181	|8191	|8201	|8211	|8221	.
CAAACGGGGCAGGAAACGGAGAAGCACAAACGAACTGATGCCTCCAATATCGAGgtggg						
K R G R K R R S T N E T D A S N I E						
	|2731				|2741	

```

. . . . .
tcagaagtagtttctcctgatgtctcctgtggtggaaagcccttcagattcctgtggt

. . . . .
ttcctccaaggatgctccaaagtgtgaaaaagctcccaggagaaactccagacattcc

. . . . .
ctgagctctaggctgtattttacaaggagctgtggggctttctggagtttcttgctgctt

. . . . .
ttcgggagtgggcatttgaaggttttcacatacttgctcatttcctctgtctcgccaaaa

. . . . .
aaaagtcaaatacccacccaaagtctgctgaaaggataaggtctgagatccagga

```

Exon 66 | Start: 234970 | End: 238044 | Length: 3074

```

. . . . .
tgcatttctaacagattcccaggatgatgctgatgcagcttggtcagggactacattttga

. . . . .
gacctccagatacaaatgatttcaacctgcctttcttcctgacatcagttaatatatttca

. . . . .
aatattacaaatatgtgccaatttaatacacttggtgctaaacaaatgctttcaatat

. . . . .
tgtgtatgcagcataaggcagaaaattgtattagtggtgaaatttgagtcattttttcttt

. . . . .
aatatgagagctaaagtggcatatgtacattgtatttaacatattgccatgtgtctttcca

|8231      |8241      |8251      |8261      |8271      |8281

```

GATCAGTCTGAGACAGAAGCCAATGTGAGTCTTGCAAGTTGGGATGTTGAGAAGACAGCC
 D Q S E T E A N V S L A S W D V E K T A
 |2751 |2761

 |8291 |8301 |8311 |8321 |8331 |8341
 ATCTTTGCTTTCAATATTTCCACGTCAGTAACAAGGTTCGAATCCTAGAACTCCTTCCA
 I F A F N I S H V S N K V R I L E L L P
 |2771 |2781

 |8351 |8361 |8371 |8381 |8391 |8401
 GCTCTTACAACCTCTGACGAATCACAACAGATACTTGATCGAATCTGGAAATGAAGATGGC
 A L T T L T N H N R Y L I E S G N E D G
 |2791 |2801

 |8411 |8421 |8431 |8441 |8451 |8461
 TTCTTTAAAATCAACCAAAAGGAAGGGATCAGCTACCTCCACTTCACAAAGAAGAAGCCA
 F F K I N Q K E G I S Y L H F T K K K P
 |2811 |2821

 |8471 |8481 |8491 |8501 |8511 |8521
 GTGGCTGGAACCTATTCAATACAAATCAGTAGTACTCCACTTTATAAAAAGAAAGAACTT
 V A G T Y S L Q I S S T P L Y K K K E L
 |2831 |2841

 |8531 |8541 |8551 |8561 |8571 |8581
 AACCAACTAGAAGACAAATATGACAAAGACTACCTCAGTGGTGAAGTGGGTGATAATCTG
 N Q L E D K Y D K D Y L S G E L G D N L
 |2851 |2861

 |8591 |8601 |8611 |*1 |*11 |*21
 AAGATGAAAATCCAGGTTTGTCTTCATTAATTCACCATCCAGAGACCAAATAATTAAAAG
 K M K I Q V L L H *
 |2871

 |*31 |*41 |*51 |*61 |*71 |*81
 AAAAAACAAATATAGATAGGTAGAACTATATTTTCCCCCAATCAGAATCATCATATCATAG

 |*91 |*101 |*111 |*121 |*131 |*141
 GTACAATCTTTCACCAAGTAAATTTGTATAAATAAGCACTATTCTTTGTATTACCAAAGC

 |*151 |*161 |*171 |*181 |*191 |*201
 AAGGTACAGGTGACTACCCTAGTTCAAAACAACCACTTTCTCAGGCTTCTCATGTGTGTA

 |*211 |*221 |*231 |*241 |*251 |*261
 GCTAAGCTACCTTGTTCATATGTGTTGATTCTTGAAAACTGGGACGTGTATTTCCATTGGG

|*271 |*281 |*291 |*301 |*311 |*321
 GGTGGCCATTTATGCTGACATGCCATCCTTCCAGCAAACGTACGGGAATGTGCTTTCAA

 |*331 |*341 |*351 |*361 |*371 |*381
 TTGATGGACTACTCTATTTTTTGCAAATTTGTAACTTTGCTTCTCCAAATACAAGTACT

 |*391 |*401 |*411 |*421 |*431 |*441
 AGGTTGTCCATTTATGGTACCTATTGCTGCTAGTAAATTTCAAAGTACTAGATTATAAAAT

 |*451 |*461 |*471 |*481 |*491 |*501
 GCACTGTAATATGTACACAACCTAGAAACCAAAATTACAAGTATTGCTTCCAATACTTCA

 |*511 |*521 |*531 |*541 |*551 |*561
 TTAATTTCAATCAACCAAAGTTAGTTCAGTAGCTTATCTCAGTTATGAGTATAATACATT

 |*571 |*581 |*591 |*601 |*611 |*621
 ACATGTAAATTAAGTGTGTGTACTGTAATCGTGCTATTTTTTATCATTGAAACATTTA

 |*631 |*641 |*651 |*661 |*671 |*681
 TAAACTAGAATAATAATGCCCTTAATGTGAGGGTTTGTAAATGGTGCTTATTAAGACCAAA

 |*691 |*701 |*711 |*721 |*731 |*741
 GACTTGTTAAATGTATACACCAAGTGGTAATGAAATTTGCTGACTGGCCACACGTGCA

 |*751 |*761 |*771 |*781 |*791 |*801
 TAGAGGTCTGGGAGGACCAGGAAACAGCCTCAGTGGCCAGAGGATCACCAGTGCATCCTT

 |*811 |*821 |*831 |*841 |*851 |*861
 CATCACAGCATGTGCAATATGCCAAGATTACCCTCGGTCATTCTGTCAACAAGGGGTCA

 |*871 |*881 |*891 |*901 |*911 |*921
 ATGTCATAAATGTCACAATAAAACAATCTCTCTTTTTTTAGTTTACCCTTGGCTTTG

 |*931 |*941 |*951 |*961 |*971 |*981
 TGTCTTGCATGGATTGGGGTTGGAGGGGCCATTCCGAGGCTAAATAAAGTCTCCTGG

 |*991 |*1001 |*1011 |*1021 |*1031 |*1041
 ATTTAAATTATCCTGGGTCTCTTACTTATGGCTTATGAAAGTACCAAATGTATAACCACT

 |*1051 |*1061 |*1071 |*1081 |*1091 |*1101
 AGAAGAAAATTTAACATATGAGTCGATCCCTTGTTTTATCCATTGAAAGTAGCAGAGTCT

 |*1111 |*1121 |*1131 |*1141 |*1151 |*1161
 GGTGTCATTAACTGACTTGCTTGTGAGAAATTTAGATTGTAGAGTCATTCTGAAACAT

 |*1171 |*1181 |*1191 |*1201 |*1211 |*1221

GACCTAATTCATCTTGTGACTTTTAAATAGTCTTAAATACCAAGTTCAGTCATTGTCTTA
 |*1231 |*1241 |*1251 |*1261 |*1271 |*1281
 GAGCACATGAATTTTCATTATAATAGATTTATCATGCCCCCTCTCAAATATACACAGTTT
 |*1291 |*1301 |*1311 |*1321 |*1331 |*1341
 TGGCAAGCCTTAGGTGTTCTGTTCCATTTTTTTTCCCCTAAACATCTTCGTTAGTCAA
 |*1351 |*1361 |*1371 |*1381 |*1391 |*1401
 TGCTCATCTAATTACAAAGGGATAATCCCAGACTGTATCCAATTGCTGTAACTTTTGGTT
 |*1411 |*1421 |*1431 |*1441 |*1451 |*1461
 TCTTAATGTCATAATTTTAAAGTCTGTTTTATTTTAAGTGCAATATTGAGTATTTAGCT
 |*1471 |*1481 |*1491 |*1501 |*1511 |*1521
 GTTAGGCTCAATCCGTCGATATGAAATAATTTTTTAAATCCCTAAGGGCAGGAAAGCATT
 |*1531 |*1541 |*1551 |*1561 |*1571 |*1581
 TCGTGGTAGTGAAAATAAGAGGAAATAAGATGGCATGAAGGTGGTGGGCGGAGAACTAG
 |*1591 |*1601 |*1611 |*1621 |*1631 |*1641
 GTAGGACACAGGAAAGTGCTCTCAAAAATCTTTGAAGAGCTCAGCTGAAAAAATGGAGT
 |*1651 |*1661 |*1671 |*1681 |*1691 |*1701
 AGATTTGGCTCATACTATTCCGGAAGGCAAAACCAGGGTCAGCTGATGTCAGCCCCAGTT
 |*1711 |*1721 |*1731 |*1741 |*1751 |*1761
 TAATACACACGGTCCCAATTATAGAGCTACTCACTGAAAGAATGGGTTTCCTTGCATTGT
 |*1771 |*1781 |*1791 |*1801 |*1811 |*1821
 GGTGAGCTCCCTGTCACAAGATAGAAGAGTTTCAGTCTAGGCTTAATGGCAACCATTGGA
 |*1831 |*1841 |*1851 |*1861 |*1871 |*1881
 CAAAGATGCTTTCTTCCACCTAACAGGCCATTAACATCTTAAAGGTATTTTGTATCTCT
 |*1891 |*1901 |*1911 |*1921 |*1931 |*1941
 AATTTTGTTTATAATAGGTGCTCAACAGAATGAGCTGAATGGCTGTTACAAAGGGGTTT
 |*1951 |*1961 |*1971 |*1981 |*1991 |*2001
 GTACCTTGGGTAAGAGATTAAAATATAACTCAAAATTTCTTCTAACGCTGCACCTATGG
 |*2011 |*2021 |*2031 |*2041 |*2051 |*2061
 AACCATGTGATAGAGGTGTATTAATAATTGTTATCGAAGAATATATAGCATATGGTAAACA
 |*2071 |*2081 |*2091 |*2101 |*2111 |*2121
 ACAGTTTGCATATGAAAAATGTCTTTGATAATTTAACCAGAACTGCATTATATTCAATAA

|*2131 |*2141 |*2151 |*2161 |*2171 |*2181
 CGGATTTTCTTTATAACAAACAACAGGGGAAAATGGAGTTGGCACACAGTGGATCACTTT

|*2191 |*2201 |*2211 |*2221 |*2231 |*2241
 GATATTTTAAATAGTCCAAGTCTGGATTTTATTATTCTGAGCCAACAATTTGAACAG

|*2251 |*2261 |*2271 |*2281 |*2291 |*2301
 CATATTTTCCATGTTTCTGACTGTAACAAAACATTTTCCTCATTGTTCCATTGTAAATAT

|*2311 |*2321 |*2331 |*2341 |*2351 |*2361
 TCCTCTTGTGGAACCTTTTTAATCCTGAGATTTAAACCTGTACCTTTCAATTGTCGTG

|*2371 |*2381 |*2391 |*2401 |*2411 |*2421
 GACCTTTCAATTTCACTTTCAATAGTTGAAGAACTTGGCTTTGTAAATCTCTCAGAAGCT

|*2431 |*2441 |*2451 |*2461 |*2471 |*2481
 TGAAAATATCTTGTCTCTACCCCTCAGCCCATTTCATTTGCCAATAATTATTTGTAAAG

|*2491 |*2501 |*2511 |*2521 |*2531 |*2541
 TAGGGTTGAAATGAACTCAGCTGGCCTTGTGAAATGTTTAACTTGCACAAACAACACATA

|*2551 |*2561 |*2571 |*2581 |*2591 |*2601
 TTTTGTTCACAAATAGCAGTTTACTCAGCCAAAATCACTTTGGATATTGCCATTACAA

|*2611 |*2621 |*2631 |*2641 |*2651 |*2661
 ATACTGTAAACTTCAGAAATCATGTCTGTAAATTAGATGAGCCAAAATAAAGGACAATT

|*2671 |*2681
 GGGTTGATGCTGCAtttagtatccttaaaagttatatacccataaatgtagggattttaa

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