

Gene: ENSG00000165671 - Sequence: ENST00000439151
Transcript: ENST00000439151 - Protein: ENSP00000395929
Date : February 26, 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: 1401 | End: 1428 | Length: 27

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. . . . .
aaccccgaagagtgaagaagggaacgcgcgcgctcggtgggggaaggggtgcgcgcgca
. . . . .
ctcggggcccgacgcgcgggcccggcgagggcgctcggtcgcacgcgcggccgcggg
. . . . .
ggcgcgcgcggtgggggtgtgaggaggaggaggcggcggcggaataggccggggcaggtc
. . . . .
gcgctcgccttctcccctgaagagagacgcggggggaggggggtgcggcgagcggcc
. . . . .
ccgctctctccccaccgctccgctcgcaccccagtgtaatgagggtcaccccctcccccc
      |-39      |-29      |-19      . . . . .
GCTGCCCCGGGAGGGGCGCGGGGCACGgtaactagtgcgctgggggtgggcggcgggcag
. . . . .
gcgcgaggagaaggaggaggagggtggccgggcggggaagatggtggtggccgtaagg
. . . . .
tgaggggctcgggggagggccaggcgcgatgcgggggttggtggccggcgctgcagcc
. . . . .
gccggcctcctccccctccccctcctccatcactaccagccgggctcaggcctagctggc
. . . . .
cgggctgccgcgaacttcctcccggcgcggcccggtgccccgccggccgctgcgaacacc
. . . . .
tcggcctccgcctcccctcaggtagcag

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Exon 2 | Start: 2563 | End: 3506 | Length: 943

.
gggaattttgacgggcagaggggttttaatttttagttcatcccaagtgtccaccagtcta
.
cagaggaggaagaaagagacgggctgtttctatgtagcaggatcggtccagcttcgggaaa
.
atggagttttcagaggctcatcgaggccattttttcatctccagtcgggggaactttttc
.
tgcccatggaagtgcagcagaaaggcatagaggccactaggccttgaagtggctgccatt
.
ttaaagagtcgagtcagatggcctattaactcagattaattgctgtgcttttgattcca

|-9 |1 |11 |21 |31 |41
GTTGATGCCGGCCCAGGATGGATCAGACCTGTGAACTACCCAGAAGAAATTGTCTGCTGC
M D Q T C E L P R R N C L L P
|1 |11

|51 |61 |71 |81 |91 |101
CCTTTTCCAATCCAGTGAATTTAGATGCCCTGAAGACAAGGACAGCCCTTTCGGTAATG
F S N P V N L D A P E D K D S P F G N G
|21 |31

|111 |121 |131 |141 |151 |161
GTCAATCCAATTTTTCTGAGCCACTTAATGGGTGTACTATGCAGTTATCGACTGTCAGTG
Q S N F S E P L N G C T M Q L S T V S G
|41 |51

|171 |181 |191 |201 |211 |221
GAACATCCCAAAATGCTTATGGACAAGATTCTCCATCTTGTTACATTCCACTGCGGAGAC
T S Q N A Y G Q D S P S C Y I P L R R L
|61 |71

|231 |241 |251 |261 |271 |281
TACAGGATTTGGCCTCCATGATCAATGTAGAGTATTTAAATGGGTCTGCTGATGGATCAG
Q D L A S M I N V E Y L N G S A D G S E
|81 |91

|291 |301 |311 |321 |331 |341
AATCCTTTCAAGACCCTGAAAAAAGTGATTCAAGAGCTCAGACGCCAATTGTTTGCACCTT
S F Q D P E K S D S R A Q T P I V C T S
|101 |111

351	361	371	381	391	401
CCTTGAGTCCTGGTGGTCCTACAGCACTTGCTATGAAACAGGAACCCTCTTGTAATAACT					
L	S	P	G	G	P
			T	A	L
			A	M	K
			Q	E	P
			S	C	N
			N	N	S
	121			131	
411	421	431	441	451	461
CCCCTGAACTCCAGGTAAAAGTAACAAAGACTATCAAGAATGGCTTTCTGCACTTTGAGA					
P	E	L	Q	V	K
			V	T	K
			T	I	K
			N	G	F
			L	H	F
			E	N	
	141			151	
471	481	491	501	511	521
ATTTTACTTGTGTGGACGATGCAGATGTAGATTCTGAAATGGACCCAGAACAGCCAGTCA					
F	T	C	V	D	D
			A	D	V
			D	S	E
			M	D	P
			E	Q	P
			V	T	
	161			171	
531	541	551	561	571	581
CAGAGGTAGAGATATAGAGGAGATCTTTGAGGAAACTCAGACCAATGCCACCTGCAATT					
E	D	E	S	I	E
			E	I	F
			E	E	T
			Q	T	N
			A	T	C
			N	Y	
	181			191	
591	601	611	621	631	641
ATGAGACTAAATCAGAGAATGGTGTAAAAGTGGCCATGGGAAGTGAACAAGACAGCACAC					
E	T	K	S	E	N
			G	V	K
			V	A	M
			G	S	E
			Q	D	S
			T	P	
	201			211	
651	661	671	681	691	701
CAGAGAGTAGACACGGTGCAGTCAAATCGCCATTCTTGCCATTAGCTCCTCAGACTGAAA					
E	S	R	H	G	A
			V	K	S
			P	F	L
			P	L	A
			P	Q	T
			E	T	
	221			231	
711	721	731	741	751	761
CACAGAAAAATAAGCAAAGAAATGAAGTGGACGGCAGCAATGAAAAAGCAGCCCTTCTCC					
Q	K	N	K	Q	R
			N	E	V
			D	G	S
			N	E	K
			A	A	L
			L	P	
	241			251	
771	781	791	801	811	821
CAGCCCCCTTTTCACTAGGAGACACAAACATTACAATAGAAGAGCAATTAAACTCAATAA					
A	P	F	S	L	G
			D	T	N
			I	T	I
			E	E	Q
			L	N	S
			I	N	
	261			271	
831	841	851	861	871	881
ATTTATCTTTTCAGGATGATCCAGATTCCAGTACCAGTACATTAGGAAACATGCTAGAAT					
L	S	F	Q	D	D
			P	D	S
			S	T	S
			T	L	G
			N	M	L
			E	L	
	281			291	

891	901	911	921	.	.	.
TACCTGGAAC TTCATCATCATCTACTTCACAGGAATTGCCATTTgtaagcagtttttgggt						
P	G	T	S	S	S	T S Q E L P F
301						
.						
acaacttaaataatacatatatgtatatatacaggccacttaaagggaacttgtaaca						
.						
aatttgtttttggttgcttatcagttcacagctgaaatcctattgctaataagcttt						
.						
gggcaaaatcttactttgatttttaaatttatctctgttgatgaatttggttgtttaa						
.						
gctttttccaaataactcttcattgagagtaggctaatagcttttaaaggcatttgattga						
.						
gttcaggtttaatttctcaagttggaggtatacatatatgatta						

Exon 3 | Start: 59360 | End: 59495 | Length: 135

```
. . . . .
ttttctttattgtgtgtgttttagttctttaaaaataaagccagcttaattttattttc

. . . . .
aaaatacggatagattcattatataaaacaattataagttgagaactatgtataaagggc

. . . . .
tatgttatgaacaattaagatggaataatttagttgtacttattttgtaattcttttag

. . . . .
gctagagtgttttcattctcaatttttcatacattgctttttcagaaggctaataaggaat

. . . . .
gacaataatgtttcaaaatattttgattcttattgatgccccatgttttgtctgtctaaa

    |931      |941      |951      |961      |971      |981
TGTC AACCTAAGAAAAAGTCTACGCCACTGAAGTATGAAGTTGGAGATCTCATCTGGGCA
C  Q  P  K  K  K  S  T  P  L  K  Y  E  V  G  D  L  I  W  A
    |311                        |321

    |991      |1001     |1011     |1021     |1031     |1041
AAATTCAAGAGACGCCCATGGTGGCCCTGCAGGATTTGTTCTGATCCGTTGATTAACACA
K  F  K  R  R  P  W  W  P  C  R  I  C  S  D  P  L  I  N  T
    |331                        |341

    |1051     |1061     . . . . .
CATTCAAAAATGAAAGgtaatacttgcagtgattatacatgttaaaggcagttgccttta
H  S  K  M  K  V
    |351

. . . . .
gaataactcaatttttgttatcttaataataatataatttttttccttggaacattttgtg

. . . . .
aatgaattggtgttacataattttatcttttggggcttttaaaagttcgttttactctatg

. . . . .
atttaaaccttctctcagttttttttttgtttgtttgttttgagacggagtcctcgct

. . . . .
cttgttgccaggctggactgtagtggtgcaatctcagctcactgcaacctctgacttgt

. . . . .
gagttcaagcgattct
```

Exon 4 | Start: 71596 | End: 71768 | Length: 172

.
ttacctgtctactatcttaatttcttctttgtagttaatctacatttagctgggttttgaa

.
gctataccacgtcatcagactagactactgattctttcataacctcctgtgtattttctt

.
gccacacatatataataacttaaaattttccttggtgtatgatctattctaggttgctagt

.
tcagtgggcatgtagttgtttccagacagtcttctttggcggcaatgatgtggctgttc

.
tcttaatgatgagaagtaatttctttgatctaatactggttctcttaccccttaccta

1071	1081	1091	1101	1111	1121
TTTCCAACCGGAGGCCCTATCGGCAGTACTACGTGGAGGCTTTTGGAGATCCTTCTGAGA					
S	N	R	R	P	Y
			Q	Y	Y
			V	E	A
			F	G	D
					P
					S
					E
					R

1131	1141	1151	1161	1171	1181
GAGCCTGGGTGGCTGAAAAAGCAATCGTCATGTTGAAGGCAGACATCAATTCGAAGAGC					
A	W	V	A	G	K
			A	I	V
			M	F	E
			G	R	H
				Q	F
				E	E
				L	

1191	1201	1211	1221	1231	.
TACCTGTCTTAGGAGAAGAGGGAAACAGAAAGAAAAAGGATATAGGCATAAGgtaggaa					
P	V	L	R	R	R
			G	K	Q
			K	E	K
			G	Y	R
				H	K

.
acgaaaaaggctttttattgagtgacagaagcaagtaagaaaaagaagaaaatggcctc

.
ttattttatttcgagacagaactttgctctgtttccagattggagtagctggtgcaat

.
ctttgttcactgcaacctccgctcccaggttcaagtattctcgtgcttcagcctcttg

.
agtagctggtattataagcgagcaccaccacgcctggctaacttttgatttagtagaga

.
caggatttcgcatgttggccaggttggtcctgaactcctgagctcaagcagc

Exon 5 | Start: 77112 | End: 79671 | Length: 2559

.
ctggccaatatggtgaaacccctattctactgaaaatacaaaaaattagctgggtgtggt

.
ggcgggtgcctgtaatcccagctactcgggaggctgaggaaggagaatcacttgaacccg

.
ggaggcagaggttgtggtgagcgaagattgtgccactgcactccagcctgggcgacagag

.
caagactctgtctcaaaaaaaaaaaaaaagggaataaaaaaaaaagcttctgatttcac

.
tcccttttccccaccatttctttgataagtataattcttttctcctttaatttaa

|1241 |1251 |1261 |1271 |1281 |1291
GTTCTCAGAAAATTTGAGTAAATGGGAAGCCAGTGTGGACTTGCAGAACAGTATGAT
V P Q K I L S K W E A S V G L A E Q Y D
|421 |431

|1301 |1311 |1321 |1331 |1341 |1351
GTTCCCAAGGGGTCAAAGAACCGAAAATGTATTCCTGGTTCAATCAAGTTGGACAGTGAA
V P K G S K N R K C I P G S I K L D S E
|441 |451

|1361 |1371 |1381 |1391 |1401 |1411
GAAGATATGCCATTTGAAGACTGCACAAATGATCCTGAGTCAGAACATGACCTGTTGCTT
E D M P F E D C T N D P E S E H D L L L
|461 |471

|1421 |1431 |1441 |1451 |1461 |1471
AATGGCTGTTTGAAATCACTGGCTTTTGATTCTGAACATTCTGCAGATGAGAAGGAAAAG
N G C L K S L A F D S E H S A D E K E K
|481 |491

|1481 |1491 |1501 |1511 |1521 |1531
CCTTGCGTAAATCTCGAGCCAGAAAGAGCTCTGATAATCCAAAAAGGACTAGTGTGAAA
P C A K S R A R K S S D N P K R T S V K
|501 |511

|1541 |1551 |1561 |1571 |1581 |1591
AAGGGCCACATACAATTTGAAGCACATAAAGATGAACGGAGGGGAAAGATTCCAGAGAAC
K G H I Q F E A H K D E R R G K I P E N
|521 |531

1601	1611	1621	1631	1641	1651
CTTGGCCTAAACTTTATCTCTGGGGATATATCTGATACGCAGGCCTCTAATGAACTTTCC					
L	G	L	N	F	I
S	G	D	I	S	D
				T	Q
				A	S
				N	E
				L	S
		541			551
1661	1671	1681	1691	1701	1711
AGGATAGCAAATAGCCTCACAGGTCCAACACTGCCCCAGGAAGTTTTCTGTTTTCTTCC					
R	I	A	N	S	L
T	G	S	N	T	A
P	G	S	F	L	F
S	S				
		561			571
1721	1731	1741	1751	1761	1771
TGTGGAAAAAAGCTGCAAAGAAAGAAATTTGAGACTTCAAATGGTGACTCTTTATTGGGC					
C	G	K	N	T	A
K	K	E	F	E	T
S	N	G	D	S	L
L	L	G			
		581			591
1781	1791	1801	1811	1821	1831
TTGCCTGAGGGTGCTTTGATCTCAAAGTGTTCTCGAGAGAAGAATAAACCCCAACGAAGC					
L	P	E	G	A	L
I	S	K	C	S	R
E	K	N	K	P	Q
R	S				
		601			611
1841	1851	1861	1871	1881	1891
CTGGTGTGTGGTTCAAAAGTGAAGCTCTGCTATATTGGAGCAGGTGATGAGGAAAAGCGA					
L	V	C	G	S	K
V	K	L	C	Y	I
G	A	G	D	E	E
K	R				
		621			631
1901	1911	1921	1931	1941	1951
AGTGATTCCATTAGTATCTGTACCACTTCTGATGATGGAAGCAGTGACCTGGATCCCAT					
S	D	S	I	S	I
C	T	T	S	D	D
G	S	S	D	L	D
P	I				
		641			651
1961	1971	1981	1991	2001	2011
GAACACAGCTCAGAGTCTGATAACAGTGTCCTTGAAATTCCAGATGCTTTCGATAGAACA					
E	H	S	S	E	S
D	N	S	V	L	E
I	P	D	A	F	D
R	T				
		661			671
2021	2031	2041	2051	2061	2071
GAGAACATGTTATCTATGCAGAAAAATGAAAAGATAAAGTATTCTAGGTTTGCTGCCACA					
E	N	M	L	S	M
Q	K	N	E	K	I
K	Y	S	R	F	A
A	A	T			
		681			691
2081	2091	2101	2111	2121	2131
AACACTAGGGTAAAAGCAAAACAGAAGCCTCTCATTAGTAACTCACATACAGACCACTTA					
N	T	R	V	K	A
K	Q	K	P	L	I
S	N	S	H	T	D
H	L				
		701			711

GCTTCTAGTCAGAATCACATACCTATTGAACCAGACTACAAATTCAGTACATTGCTAATG
A S S Q N H I P I E P D Y K F S T L L M
|901 |911
|2741 |2751 |2761 |2771 |2781 |2791
ATGTTGAAAGATATGCATGATAGTAAGACGAAGGAGCAGCGTTGATGACTGCTCAAAAC
M L K D M H D S K T K E Q R L M T A Q N
|921 |931
|2801 |2811 |2821 |2831 |2841 |2851
CTGGTCTCTTACCGGAGTCCTGGTCGTGGGGACTGTTCTACTAATAGTCCTGTAGGAGTC
L V S Y R S P G R G D C S T N S P V G V
|941 |951
|2861 |2871 |2881 |2891 |2901 |2911
TCTAAGGTTTTGGTTTCAGGAGGCTCCACACACAATTCAGAGAAAAAGGGAGATGGCACT
S K V L V S G G S T H N S E K K G D G T
|961 |971
|2921 |2931 |2941 |2951 |2961 |2971
CAGAACTCCGCCAATCCTAGCCCTAGTGGGGTGACTCTGCATTATCTGGCGAGTTGTCT
Q N S A N P S P S G G D S A L S G E L S
|981 |991
|2981 |2991 |3001 |3011 |3021 |3031
GCTTCCCTACCTGGCTTACTGTCCGACAAGAGAGACCTCCCTGCTTCTGGTAAAAGTCGT
A S L P G L L S D K R D L P A S G K S R
|1001 |1011
|3041 |3051 |3061 |3071 |3081 |3091
TCAGACTGTGTTACTAGGCGCAACTGTGGACGATCAAAGCCTTCATCCAAATTGCGAGAT
S D C V T R R N C G R S K P S S K L R D
|1021 |1031
|3101 |3111 |3121 |3131 |3141 |3151
GCTTTTTCAGCCCAAATGGTAAAGAACACAGTGAACCGTAAAGCCTTAAAGACCGAGCGC
A F S A Q M V K N T V N R K A L K T E R
|1041 |1051
|3161 |3171 |3181 |3191 |3201 |3211
AAAAGAAAACTGAATCAGCTTCCAAGTGTGACTCTTGATGCTGTACTGCAGGGAGACCGA
K R K L N Q L P S V T L D A V L Q G D R
|1061 |1071
|3221 |3231 |3241 |3251 |3261 |3271
GAACGTGGAGGTTTCATTGAGAGGTGGGGCAGAAGATCCTAGTAAAGAGGATCCCCTTCAG

E R G G S L R G G A E D P S K E D P L Q
 |1081 |1091

 |3281 |3291 |3301 |3311 |3321 |3331
 ATAATGGGCCACTTAACAAGTGAAGATGGTGACCATTTTCTGATGTGCATTTTCGATAGC
 I M G H L T S E D G D H F S D V H F D S
 |1101 |1111

 |3341 |3351 |3361 |3371 |3381 |3391
 AAGGTTAAGCAATCTGATCCTGGTAAAATTTCTGAAAAAGGACTCTCTTTGAAAACGGA
 K V K Q S D P G K I S E K G L S F E N G
 |1121 |1131

 |3401 |3411 |3421 |3431 |3441 |3451
 AAAGGCCCAGAGCTGGACTCTGTAATGAACAGTGAGAATGATGAACTCAATGGTGTAAT
 K G P E L D S V M N S E N D E L N G V N
 |1141 |1151

 |3461 |3471 |3481 |3491 |3501 |3511
 CAAGTGGTGCCTAAAAAGCGGTGGCAGCGTTTAAACCAAAGGCGCACTAAACCTCGTAAG
 Q V V P K K R W Q R L N Q R R T K P R K
 |1161 |1171

 |3521 |3531 |3541 |3551 |3561 |3571
 CGCATGAACAGATTTAAAGAGAAAGAAAACCTCTGAGTGTGCCTTTAGGGTCTTACTTCCT
 R M N R F K E K E N S E C A F R V L L P
 |1181 |1191

 |3581 |3591 |3601 |3611 |3621 |3631
 AGTGACCTGTGCAGGAGGGGCGGGATGAGTTTCCAGAGCATAGAACTCCTTCAGCAAGC
 S D P V Q E G R D E F P E H R T P S A S
 |1201 |1211

 |3641 |3651 |3661 |3671 |3681 |3691
 ATACTTGAGGAACCACTGACAGAGCAAAATCATGCTGACTGCTTAGATTGAGCTGGGCCA
 I L E E P L T E Q N H A D C L D S A G P
 |1221 |1231

 |3701 |3711 |3721 |3731 |3741 |3751
 CGGTTAAATGTTTGTGATAAATCCAGTGCCAGCATTGGTGACATGGAAGGAGCCAGGA
 R L N V C D K S S A S I G D M E K E P G
 |1241 |1251

 |3761 |3771 |3781 |3791
 ATTCCCAGTTTGACACCACAGGCTGAGCTCCCTGAACCAGgtaaggacatctaaatgtga
 I P S L T P Q A E L P E P A

.
taaaaaaaaaaaattggagaaagtgctgataaacattgtccttctgaaattggtctgtt
.
gtaatggtaaagtgaagtataaactagcggggaagaatcatcacttcaatgaagaaggag
.
ttttatgtagaaaggtctgaattttgaagatgagatttccatatatattcaaaagttaa
.
ctttaccagaagcccttttccccaaccttttcaagtaaattctctataacatctttctttc
.
tcactttctctctctctcttttctctctctctctttttttt

Exon 6 | Start: 103297 | End: 103421 | Length: 124

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. . . . .
tacaggtgtcagtgactataagacctggcctttaaatTTAACCTTTccttaattttggat
. . . . .
gggccacatatattctattatttTgtgtatataaggtaacacaagtcctttTgtctcccc
. . . . .
cagctcctttTgcatatgagaaaacataagccattttTgtgcctcttgcatcttaagccat
. . . . .
agtctattttactatgtggtttcccatctggttactttTgggagtatcagatgggtctcat
. . . . .
aaaaacagtgggtttTcctgaagctttttgattaatgTtgaaattgtttatcatctttta

|3801      |3811      |3821      |3831      |3841      |3851
CTGTGCGGTCAGAGAAGAAACGCCTTAGGAAGCCAAGCAAGTGGCTTTTGAATATACAG
V R S E K K R L R K P S K W L L E Y T E
          |1271                      |1281

|3861      |3871      |3881      |3891      |3901      |3911
AAGAATATGATCAGATATTTGCTCCTAAGAAAAAACAAAAGAAGGTACAGGAGCAGGTGC
E Y D Q I F A P K K K Q K K V Q E Q V H
          |1291                      |1301

|3921. . . . .
ACAAGgtatgttgcaaaatttcagcaaactttcactggTccttaggaaactgcaatttta
K

. . . . .
tcttcaatgtcatactttatcttcatgaaacaataatttccttaactgagatcttgTTTT
. . . . .
ttattctcagcttctagcacagtacttaggatttagtggttattcaggaaatatataaat
. . . . .
gaatctacatattgtattttatgtatatatTTTTccctctttgccttcaaagagtaa
. . . . .
tgacttaggaatattgttatgatttaatcttaagtaaaaatataggctataaagtgaaat
.
atata
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Exon 7 | Start: 105713 | End: 105983 | Length: 270

.
aaattaaaaatcaatacccatcaaccaataactcccttttctgctcagcccctggcaatt

.
gccattctatcttctgtctcaagaattttcttattctagataacctcatatacttgaaatc

.
atacgatatattgttcttctgtgtcttaagtaatttcccttagcatacataatgtcttcaag

.
gttcatccactttttgtagcctttgtcagaatttcattccttttaaagtgtgttattctt

.
tttgacacttaaatcaacaattttggcctgtggactctatttttatttttgttctta

 |3931 |3941 |3951 |3961 |3971 |3981
GTAAGTTCCCGCTGTGAAGAGGAAAGCCTTCTAGCCCGAGGTCGATCTAGTGCTCAGAAC
V S S R C E E E S L L A R G R S S A Q N
 |1311 |1321

 |3991 |4001 |4011 |4021 |4031 |4041
AAGCAGGTGGACGAGAATTCTTTGATTTCACCAAGAAGAGCCTCCAGTTCTTGAAAGG
K Q V D E N S L I S T K E E P P V L E R
 |1331 |1341

 |4051 |4061 |4071 |4081 |4091 |4101
GAGGCTCCGTTTTTGGAGGGCCCTTGGCTCAGTCAGAACTGGAGGTGGACATGCTGAG
E A P F L E G P L A Q S E L G G G H A E
 |1351 |1361

 |4111 |4121 |4131 |4141 |4151 |4161
TTGCCGAGCTGACCTTGTCTGTGCCTGTGGCTCCGGAAGTCTCTCCACGGCCTGCCCTT
L P Q L T L S V P V A P E V S P R P A L
 |1371 |1381

 |4171 |4181 |4191
GAGTCTGAGGAATTGCTAGTTAAAACGCCAGgtaaggtggggttggggtctcagtatttg
E S E E L L V K T P G
 |1391

.
agcagatatgattagaggaagcaggagatttttagtatgttttgatgtaaagccaacattg

.

tatctatatacaataaactacccccttttgtcctgggaaataacttaaaatgatggttaat

.
tagatatagttactaaccatgaactgtggcacactatcaagaagatgtatttttaataac

.
tatgctccttgctccagtgttgctcttcatgattgttgatcagccactgtgtaaattaac

.
aaccaggataacagggttcaagaggagtac

Exon 8 | Start: 107232 | End: 107341 | Length: 109

.
caccaacaatcagttgttataaaggcagttccgtccttctgacttctcccttagtgattt

.
tgtgagttaaagtcaccacacacacatccctcacattagttgggtgcttgattgaaaact

.
gtttacttgttttgtttactaatattttataataagcaaattaccatcctgcctcttccc

.
ataagatgacggggaaaacatcaaaaacattgagattcattttgtgtgtatatacagattt

.
tttaaaaattaacttggtgccagtttctaatcatctaagttaaagatacatgcatttca

4201	4211	4221	4231	4241	4251
GAAATTATGAAAGTAAACGTCAAAGAAAACCAACTAAGAAACTTCTTGAATCCAATGATT					
N	Y	E	S	K	R
	Q	R	K	P	T
			K	K	L
			L	L	E
				S	N
					D
					L
1401			1411		

4261	4271	4281	4291	4301	.	.
TAGACCCTGGATTATGCCCCAAGAAGGGGGACCTTGGCCTTCTAAAAAGtatgttatt						
D	P	G	F	M	P	K
		K	K	G	D	L
				L	S	K
					K	
1421			1431			

.
tttgaagttctaaaagaaataaactcaggaaatgagaaattttaaaatgacattttga

.
gtagcagttataacattgatgtacatacatatagaaattagtggtgtgtcagcagtcatt

.
acatgatctgagatttcctacatgaaaggctgttttgagttgtgtgacatgtatgtgt

.
ataaactggtttcaggtttcctttccaagtgaaaaaatttttaaatgctttgaagatta

.
agtttggtttgttataatttcttttctgggttcaaatacctcttacctgt

Exon 9 | Start: 111671 | End: 111746 | Length: 75

.
tgttggtcaggctggtcctttaactctcaacctcaggtgatccaccgcctcagcctccta

.
acgtgctaggattacaggtgtgagccatcatgccctgtctgttgagcattttaaaatct

.
gattcctttccccctgaagtttccgttcaaccctttactgtggtcaggttgatttcttta

.
attgctaaaacaagtcaaaattcaatatccatggcagctgacaattcagactttggcata

.
taaagtaaagggtttatttttcatcctctgtaaatggtgttgttttcacttatttata

 |4311 |4321 |4331 |4341 |4351 |4361
TGCTATGAAGCTGGTCACCTGGAGAATGGCATAACTGAATCTTGTGCCACATCTTATTCA
C Y E A G H L E N G I T E S C A T S Y S
 |1441 |1451

 |4371
AAAGATTTTGGTGGAGgtgagtattttgagatttaaaaaacgtaatgcagtagtaagtt
K D F G G G

.
tgaagtgctttgtctgttaaccacaaaaattgttacatgtgtaagcccgaccagtgaggt

.
acaagttttaaaactggtttgcccaaatctgcttcctgaaaaagaaaaatattgataa

.
attgaatatctactctaccaggacttttagtaggaatgctacctgtaatctctctaaagc

.
gttacagagagttaggttattatctatagtattcctgttttatagaagaaatgtgaagat

.
gaacaaggtagcaagg

Exon 10 | Start: 114154 | End: 114272 | Length: 118

```
. . . . .
gatttaattcctttgaagaactacaagatttgtcatttcaatcatataaaattaaaatttc

. . . . .
tgtaataacctatacacttactatttaatctatatgaggagcagttacatatatgtagc

. . . . .
catttccttcttggttatgtcatcatgagtttagtctcaattattatttccccgttttcc

. . . . .
taatccacaaagctggagaattaaatgagttttaagggttggtttttattctaataatagg

. . . . .
ataagagattttgacatgtgtgtagtagccagcagttaacacctattttcctgtcata

|4381      |4391      |4401      |4411      |4421      |4431
GCACTACCAAGATATTTGACAAGCCAAGGAAGCGAAAACGACAGAGGCATGCTGCAGCCA
T T K I F D K P R K R K R Q R H A A A K
|1461                                |1471

|4441      |4451      |4461      |4471      |4481      |4491
AGATGCAGTGTAAGGAGTGAAAAATGATGACTCGTCAAGAGATTCCAGGCTCAGAGg
M Q C K K V K N D D S S K E I P G S E
|1481                                |1491

. . . . .
tattactcagttcctgatcttttcaccttctaagagaagctacttttcacgccagaggc

. . . . .
cacatccctctttcccttgagttttcttaagaatactattctactgaaatggctgatggc

. . . . .
cataaggaatcttgaggagaaagtagagccttatcctaataataaggcaaggcatgtatt

. . . . .
gcagctgtcaatatggctctttttaaagatcatcacatcctatgctgtaggtgtccaatc

. . . . .
aggtatataagtgtttcatcgtaaagtaaaacttgtaaaaccggagagtacaatatcaag
```

Exon 11 | Start: 115657 | End: 115800 | Length: 143

```
. . . . .
aaataagtaatcaaataaacttaagaatgttttctctcccttagtgaaaccttaaaatgg

. . . . .
aacagctcagaaagttccagtggaacaaacagcctcagagcagttagtggcagggcatga

. . . . .
ggcgcccactacccgccaatcacagcagggttagaactaacattgcatgcagtcgcccc

. . . . .
gagtgattggctgaacatctgtaagtgcttaatggctagacaaatagcagcccagaggga

. . . . .
gggggtcaaatggaagagacatcaataatacagatgtgggacattatTTTTTctttgcaa

|4501      |4511      |4521      |4531      |4541      |4551
GGAGAACTAATGCCTCACAGGACGGCCACAAGCCCCAAGGAGACTGTTGAGGAAGGTGTA
G E L M P H R T A T S P K E T V E E G V
|1501                                |1511

|4561      |4571      |4581      |4591      |4601      |4611
GAACACGATCCCGGGATGCCTGCCTCTAAAAAATGCAGGGTGAACGCGGTGGAGGAGCT
E H D P G M P A S K K M Q G E R G G G A
|1521                                |1531

|4621      |4631      |4641. . . . .
GCACTCAAGGAGAATGTCTGTCTAGtagagaaatgtttgccacttggtgttttcattgca
A L K E N V C Q
|1541

. . . . .
tgttcatctttaaagggaaccactccatctctttatgatggtttcttggtagaataac

. . . . .
aatgcttttggtatgattccagtgaggagtcactttctttaaggatttgacccttttttct

. . . . .
ccccacaaagaaagatacttgagaaatagtttagtggttggaaccacgtgcccttaag

. . . . .
gcccatgaaggaatatatgccgcgaacaagtctgagatggaatatgtgaatctctggtt

. . . . .
gcttattcaaatataattctccag
```

Exon 12 | Start: 119206 | End: 119329 | Length: 123

.
agtagctttctggtttatctctatgctcttttctgaccttctactcttgaactcgtttt

.
ccatgtagcagtcagaacagtccttttaaaaatgaatacctgatttttagctttcctttgt

.
taaagctctccaatggtacacctttgtaactagactaaaatctacaactacgggcccttg

.
cctctttctcacctccttttctgccacttttaacctttgtttactttaaccactgacac

.
tggttttactcttgattctcaaacatggaaaaacagatagatgttttctttctttaaca

 |4651 |4661 |4671 |4681 |4691 |4701
AATTGTGAAAAATTGGGTGAGCTGCTGTTATGTGAGGCTCAGTGCTGTGGGGCTTCCAC
N C E K L G E L L L C E A Q C C G A F H
 |1551 |1561

 |4711 |4721 |4731 |4741 |4751 |4761
CTGGAGTGCCTTGGATTGACTGAGATGCCAAGAGGAAAAATTATCTGCAATGAATGTGCG
L E C L G L T E M P R G K F I C N E C R
 |1571 |1581

.
ACAGgtaaagtagatatcgaacggtcttcctccaaagaaagtttgaattttaagtttttc
T G

.
aggaaagacatttattggagacactattttgtggcaacactgggctagtgtttacagata

.
tagaaatggtgctgtggggtcactgctttcagaaaagctaccaagtgaataataaatggg

.
tagcataatacagtgcaaaaagcattgtgttggtgatacattagaatgtaatgtaagca

.
aagatgagctgatgccatagaggaagatatctgtgttttagctttaagagagaaagagaaa

.
ttga

Exon 13 | Start: 124427 | End: 124627 | Length: 200

```
. . . . .
cctgtaaacttgttagttagtcaggggcttgattaggtttaatttcagtttttctttt

. . . . .
ttggcgggggtgccagcggcaagcattttctgtagacaatatgtactttctgttgatca

. . . . .
cgtcaggagagtatctattaccagattgttcatttataataataactaagattgttacagt

. . . . .
ggttcagacgatgtcaaaccgatcagtcattataaaatttcttatgaacttttcaccta

. . . . .
atggtttagcatttggtagattcttgaattcttactaatttatcttcttttggttctca

      |4771      |4781      |4791      |4801      |4811      |4821
GAATCCATACCTGTTTTGTATGTAAGCAGAGTGGGGAAGATGTTAAAAGGTGCCTTCTAC
  I  H  T  C  F  V  C  K  Q  S  G  E  D  V  K  R  C  L  L  P
      |1591                                |1601

      |4831      |4841      |4851      |4861      |4871      |4881
CCTTGTGTGGAAAGTTTTACCATGAAGAGTGTGTCCAGAAGTACCCACCCACTGTTATGC
  L  C  G  K  F  Y  H  E  E  C  V  Q  K  Y  P  P  T  V  M  Q
      |1611                                |1621

      |4891      |4901      |4911      |4921      |4931      |4941
AGAACAAGGGCTTCCGGTGCTCCCTCCACATCTGTATAACCTGTGCTGCTAATCCAG
  N  K  G  F  R  C  S  L  H  I  C  I  T  C  H  A  A  N  P  A
      |1631                                |1641

      |4951      |4961      . . . . .
CCAATGTTTCTGCATCTAAAGgtatggatttcttatgtggaccagtctaattgtaaaacc
  N  V  S  A  S  K  G
      |1651

. . . . .
tcagtttaattggcaacagatatatttctttttctttcttttttttttttttttttga

. . . . .
gacagagtctcgctgtgttgccgaggctggagtgcagtggcgtgatcttgcccactgca

. . . . .
agctccgcctcctgggttcacgccattctcctgcttcagcctcctgagtagctgggacta
```

.
caggcgcctgccaccatgcctggctaattttttgtatttttagtagagacggggttca

.
ccgtgttagccaggatggtct

Exon 14 | Start: 127465 | End: 127644 | Length: 179

```
. . . . .
tctccctatttattctggggctgatttcctagttgtcaggacagtggtttgagttgggct

. . . . .
ttcccttgttgaagcaggctcactgacagttacgggatttgattccttttgagacttat

. . . . .
cacatagctcccatctgagttttcttgatggatcgagtgtttaagatccatcatcttagt

. . . . .
ggtcattccttctattttgtgacattttttcagtgctaacaaatagacttgaataactcac

. . . . .
attctttttatatttaaatatttttgtttttcttttgcttgccctgattttcctgcttta

      |4971      |4981      |4991      |5001      |5011      |5021
GTGGTTGATGCGCTGTGTCCGCTGTCCTGTGGCATACACGCCAATGACTTTTGCCTGG
  R  L  M  R  C  V  R  C  P  V  A  Y  H  A  N  D  F  C  L  A
                |1661                                |1671

      |5031      |5041      |5051      |5061      |5071      |5081
CTGCTGGGTCAAAGATCCTTGTCATCTAATAGTATCATCTGCCCTAATCACTTTACCCCTA
  A  G  S  K  I  L  A  S  N  S  I  I  C  P  N  H  F  T  P  R
                |1681                                |1691

      |5091      |5101      |5111      |5121      |5131      |5141
GGCGGGGCTGCCGAAATCATGAGCATGTTAATGTTAGCTGGTGCTTTGTGTGCTCAGAAG
  R  G  C  R  N  H  E  H  V  N  V  S  W  C  F  V  C  S  E  G
                |1701                                |1711

. . . . .
gtaagaaatcatttcttctctatttgtagtctaaaaagggattaaatcaatgttttaat

. . . . .
tggaacaaaaatacttttcatcatattgccactggaaaaaatattagaaatgatactatt

. . . . .
catctgccattcaggaaatgatgtcccgaattaatgattacatagcagaactttttttt

. . . . .
tttttttttttttttgagacaacgtttcactctgttgcccaggctggagtgctatggca

. . . . .
caatctcagctaactgcagcctccacctcccaggttcaagcagttctcctgcctcagcct
```

Exon 15 | Start: 135038 | End: 135194 | Length: 156

```
. . . . .
acagatgtggttattgtttattagagaaaactccttaccgctgaggaaattatagctcag

. . . . .
caaggaaagtgaatttcccaagggcctgtggtcctagagctagaattccaacctgaacct

. . . . .
gacgagagttaaataaaagcttatgctgtttatactctggtcattatgtgtcactgataat

. . . . .
gtttttatttagtatatcttttagtgaagagaaagaaaatatatatatatatgtgtatgg

. . . . .
atgtacacatacatgacttgagctctgtgatctgaatgccacatttttttattcccaca

      |5151      |5161      |5171      |5181      |5191      |5201
GAGGCAGCCTTCTGTGCTGTGATTCTTGCCCTGCTGCTTTTCATCGTGAATGCCTGAACA
      G  S  L  L  C  C  D  S  C  P  A  A  F  H  R  E  C  L  N  I
                        |1721                        |1731

      |5211      |5221      |5231      |5241      |5251      |5261
TTGATATCCCTGAAGGAAACTGGTATTGCAATGACTGTAAAGCAGGCAAAAAGCCACACT
      D  I  P  E  G  N  W  Y  C  N  D  C  K  A  G  K  K  P  H  Y
                        |1741                        |1751

      |5271      |5281      |5291      |5301      . . . .
ACAGGGAGATTGTCTGGGTAAAAGTTGGACGATACAGGtaagcctgaagaatagcactca
      R  E  I  V  W  V  K  V  G  R  Y  R
                        |1761

. . . . .
tctcttttaccatcctctgtttcttgagacctctcagatacaatgcttaacgtatttcta

. . . . .
atgatctacttaattactcatggtactcctcccctcttcttcttgatttttttccttata

. . . . .
ggaagagaaacctaactttatgatttacaattataggaataatacatgttctctgtcgaa

. . . . .
atTTTTTTTTtTTTTgtgtattttgtgaaaagTTTTTTTTTTTTTTTaaatgaaaaga

. . . . .
cagtaataatctcacaaggcaggcgcatgtttaacat
```


Exon 16 | Start: 137078 | End: 137283 | Length: 205

.
tcagtgaatgttattgtcataactctctgttcctatatcattatttcctttaagtagaat

.
ccttgaagtagaataattgagtcctaagggagtgcgcgctgtgtgggaatgtgggcagat

.
gtttccagcttctagcacatacgacttgtttggttctagttaggttgtaagaatgccg

.
taagatggactttaatgtggacagacagacattgctaataccttacttttatatgagtagg

.
ttattttcctaatgccttgcagccttctagaggttttccttctccttttcacctttccca

 |5311 |5321 |5331 |5341 |5351 |5361
GTGGTGGCCAGCTGAGATCTGCCATCCTCGAGCTGTTTCCTTCCAACATTGATAAGATGAG
W W P A E I C H P R A V P S N I D K M R
 |1771 |1781

 |5371 |5381 |5391 |5401 |5411 |5421
ACATGATGTGGGAGAGTTCCAGTCCTCTTTTTTGGATCTAATGACTATTGTGGACTCA
H D V G E F P V L F F G S N D Y L W T H
 |1791 |1801

 |5431 |5441 |5451 |5461 |5471 |5481
CCAGGCCCGAGTCTTCCCTTACATGGAGGGTGACGTGAGCAGCAAGGATAAGATGGGCAA
Q A R V F P Y M E G D V S S K D K M G K
 |1811 |1821

 |5491 |5501
AGGAGTGGATGGGACATATAAAAAAGgtaactttatcctttttgtttctcaggcaaacac
G V D G T Y K K A
 |1831

.
agacctctgttacctgagtgctgatctgttttagaattcacatatgctccattttgaaa

.
ctgcctttgtcctctcagggcattatctggctgcaaatacagtattttgcaaggaagttg

.
acctcatgtaactcattatttttgagccttaacctttacttaatttgaatttccttgagct

.
tttttttgacttatcagttgtttgtcagcattccatcaaataatggagttctgaaacta

.
tttcatagaagaaacacttcagtttg

Exon 17 | Start: 141148 | End: 141260 | Length: 112

```
. . . . .
taagcaaaaagttctcgtattcagatggatggatgccagtgatctaaagggatagtc

. . . . .
tgtatttgccatttagttctggattatgttttgtcttaatactatgtctgaataccctt

. . . . .
tggactacattacctgtttgaaaatagctgttatgtgttttcttttcatatagcattgg

. . . . .
tcgatttttgtgtaaaacatggagtttctccaacttaaaggggaaaaagtaaaaaataag

. . . . .
tgaataaataagtaattccaccagagattttgaagtgacttgctgtctgttttcata

|5511      |5521      |5531      |5541      |5551      |5561
CTCTTCAGGAAGCTGCAGCAAGGTTTGAGGAATTAAAGGCCAAAAAGAGCTAAGACAGC
  L  Q  E  A  A  A  R  F  E  E  L  K  A  Q  K  E  L  R  Q  L
                |1841                        |1851

|5571      |5581      |5591      |5601      |5611      |5621 .
TGCAGGAAGACCGAAAGAATGACAAGAAGCCACCACCTTATAAACATATAAAGgtgagga
  Q  E  D  R  K  N  D  K  K  P  P  P  Y  K  H  I  K
                |1861                        |1871

. . . . .
gaaaatcttgggggaccttctctagaagagaaatggaatagctggctcttcccactctgt

. . . . .
tcatgacaagaacggaagcacaagcatagttcgttttaggtagaggatgagcttaaaag

. . . . .
aagatcagaaatagccgggcacggtggctcacgcttgtaatccagcactttgggaggcc

. . . . .
gaggcgggcgggatcacctgaagtcaggagtttgagaccagcctggccaggcaggtgcctg

. . . . .
taattccagctacttgggaggctgaggctggagaattgcttgaaccgggagg
```

Exon 18 | Start: 148041 | End: 148310 | Length: 269

.
accgtacctggctcgtatTTTTTTTTTgagatggaatctcaacatatcggccaggctg

.
gagtgcagtggtgaaatcttgtctcactgcaacctccgcctcctgggttcaagcaattct

.
tgtggagttcatatTTTgtatgtcaagtgaggctctgtTTTTtatatgaaactaagtgttg

.
atagttcaaatcatgggaaatgtggctgcaacttcaaggaaaaaagttgcctTTTTc

.
aggacgtgaattgtcttctgctgacttgTTTTtatgcggtgtactttgtgttactTTTcca

 |5631 |5641 |5651 |5661 |5671 |5681
GTAAACCGTCCTATTGGCAGGGTACAGATCTTCACTGCAGACTTATCTGAAATACCCCGT
V N R P I G R V Q I F T A D L S E I P R
 |1881 |1891

 |5691 |5701 |5711 |5721 |5731 |5741
TGCAACTGTAAAGCTACTGATGAGAACCCCTGTGGGATAGACTCTGAATGCATCAACCGC
C N C K A T D E N P C G I D S E C I N R
 |1901 |1911

 |5751 |5761 |5771 |5781 |5791 |5801
ATGCTGCTCTATGAGTGCCACCCACAGTGTGTCCTGCCGAGGGCGCTGTCAAAACCGAG
M L L Y E C H P T V C P A G G R C Q N Q
 |1921 |1931

 |5811 |5821 |5831 |5841 |5851 |5861
TGCTTTTCCAAGCGCCAATATCCAGAGGTTGAAATTTTCCGCACATTACAGCGGGGTTGG
C F S K R Q Y P E V E I F R T L Q R G W
 |1941 |1951

 |5871 |5881 |5891
GGTCTACGGACAAAAACAGATATTTAAAAAGgtagaaaaagctaaattaccatatacttt
G L R T K T D I K K
 |1961

.
ctcctctttgcagttgcttgatatcattgatccttgacattagaaaattcatcatagaag

.

aaaataacacagttaataattaaccttattgttgtgtcttgccatatccttctaccgttt

.
agaggcttacgaatggatgggttttgatctccaagtcctttgtattgatcatggtcactg

.
tgtaggaggttggaataatgggacattcatagagatgctatggcctttgtttgctttttt

.
gtgaatatcctacagctggtaattaagaga

Exon 19 | Start: 149941 | End: 150057 | Length: 116

.
agattggccatccatctctctttataaggacgctctagtttacttactaatcttccattc

.
tggaggatcttttagtatccagtgtatcctaatactttctgctgctgacagtggttaggagta

.
aggaggtgtttctcattatcaaatagttggggatcgtaaagtaattatgtgtgcctaaaa

.
ttatactcatgtaatctgctttgtagaatgtgatgttttcattaattttttaaaaaaatg

.
tatacatttggataccagtgtccttttttgccattaagtcaggaggtatttcttgttcta

5901	5911	5921	5931	5941	5951
GGTGAATTTGTGAATGAGTATGTGGGTGAGCTTATAGATGAAGAAGAATGCAGAGCTCGA					
G E F V N E Y V G E L I D E E E C R A R					
	1971			1981	

5961	5971	5981	5991	6001
ATTCGCTATGCTCAAGAACATGATATCACTAATTTCTATATGCTCACCTAGACAAAgta				
I R Y A Q E H D I T N F Y M L T L D K				
	1991			2001

.
agtaatgggaaatgctgttttctactgttacaagattgtaaatttgtgtgtcccagccat

.
agtatttgtaggcagtaacgcagttcccaaggtagggcttttcccataccattggga

.
ttgctggattggggttctggagtaggtaagagtgctcattttctgggtattcatggccag

.
aggcaatacagcagcttttagcattgtttttgaacaattcaatgaaaattggagcttata

.
tctttgagtattttttctacaggattacaagtttgaactcagaaaagtacataattc

Exon 20 | Start: 151263 | End: 151404 | Length: 141

.
tcaatgtagtcagaaacccctggcagccttggttatataaacgcagaatgctgcaccca

.
cagtctctgcttagtgatattgaagcacaaccaggaattgcatgtctaacaattgc

.
caaatggtgatggtgctggtccagggatcacactttgagaacaaagtctttgggatct

.
tttctctgagagggttcagtctttacaaatagaaactccaacttattagagagaatagtca

.
aattttaatccacagcagagggtctcaggaagtctgatgtgtagcttcttttgaattcta

6011	6021	6031	6041	6051	6061
GACCGAATCATTGATGCTGGTCCCAAAGGAACTATGCTCGGTTTCATGAATCATTGCTGC					
D R I I D A G P K G N Y A R F M N H C C					
	2011				2021

6071	6081	6091	6101	6111	6121
CAGCCCAACTGTGAAACACAGAAGTGGTCTGTGAATGGAGATACCCGTGTAGGCCTTTT					
Q P N C E T Q K W S V N G D T R V G L F					
	2031				2041

6131	6141	6151.
GCACTAAGTGACATTAAAGCAG	gtaagaatcatttcaggattctgcagctgacatctgaa								
A L S D I K A G									
	2051								

.
tttcagggtctttgttttttacaacagcttcctcagattataattttaaacatttctat

.
atgtaccgttctctggaattaagttcatttacattttgtgcaaccatcaccaccatccg

.
tctccagaactcttttcatcttcccctgctaaaactctatacctactaaacactaagtcc

.
ccattcttcttttcttcacagcccctggcaactaccattctactttctgtctctgaatt

.
tgactactatatgtacttcata

Exon 21 | Start: 156295 | End: 156401 | Length: 106

```
. . . . .
gaattaacataatatttgaatctgaatggttaataaacaacaaatgaaaaacaacttgaggtaat

. . . . .
taacacctctggaggaagagttatcttaaataattacttgtaagccatttaagttttctc

. . . . .
tgttaaattgtattacctgattattaatggtataagattagaattaattaaaatatagga

. . . . .
ttagagctaaattctttttaaaattaatctgttctcttgggagttggtatcctttgtaat

. . . . .
taatacagaaataatgtaattaaaaccatagatattaatattttcacggtctcttatgca

      |6161      |6171      |6181      |6191      |6201      |6211
GCACTGAACTTACCTTCAACTACAACCTAGAAATGTCTTGGGAATGGAAGACTGTTTGCA
  T E L T F N Y N L E C L G N G K T V C K
                        |2061                                |2071

      |6221      |6231      |6241      |6251      . .
AATGTGGAGCCCCGAACTGCAGTGGCTTCTTGGGTGTAAGGCCAAAGgtaccacccttct
  C G A P N C S G F L G V R P K
                        |2081

. . . . .
agacttctgctttgggattagtggtgcggtcctccctccctaacagtgttagggcagtct

. . . . .
acattttaagaagaaatctctttgaaattaatgacattcagccaggcatggtggctcatg

. . . . .
cctgtaatcccagcactttgggaggctgaggtgggcggatcacctgaggtcaggagttcg

. . . . .
agaccagcctggccaacatgatgaaaccccatctctaataagaatagaaaaattagctgg

. . . . .
gccgtggtggcatgtgcttgtagtcccagctactcaggaggctgagg
```


Exon 22 | Start: 159430 | End: 159634 | Length: 204

```
. . . . .
gaaaaataaataaattaattaactaataaaaacttatgaaaggcatgtcatttaacaccag

. . . . .
ccttatggatcagcaaaaacacaaagatTTTTgtcttctgttttgttcaggtggcaggag

. . . . .
tagttgatacaaaaattattgctacgtatctgtgatgtaccaggtacctttcctgcattt

. . . . .
tatcttcatgacaatctcttttccagagaagagaatgaggctcagagagggtagttaac

. . . . .
ccggttaagattggtactaatgtgttcacagaatgctgactgttcaatatctgacctgta

|6261      |6271      |6281      |6291      |6301      |6311
AATCAACCCATTGCCACGGAAGAAAAGTCAAAGAAATTCAAGAAGAAGCAACAGGGAAAG
N Q P I A T E E K S K K F K K K Q Q G K
|2091                      |2101

|6321      |6331      |6341      |6351      |6361      |6371
CGCAGGACCCAGGGTGAATCACAAAGGAGCGAGAAGATGAGTGTTTTAGTTGTGGGGAT
R R T Q G E I T K E R E D E C F S C G D
|2111                      |2121

|6381      |6391      |6401      |6411      |6421      |6431
GCTGGCCAGCTCGTCTCCTGCAAGAAACCAGGCTGCCCAAAGTTTACCACGCAGACTGT
A G Q L V S C K K P G C P K V Y H A D C
|2131                      |2141

|6441      |6451      |6461      . . . . .
CTCAATCTGACCAAGCGACCAGCAGgttggtgcaaaatccatttgtaccgctactcgtt
L N L T K R P A G
|2151

. . . . .
ctctccatcatactcagggctctcatgccatttgcacagccttgaagaaagtgccatttg

. . . . .
gtctttccatgcataatTTTgaggggtatggtctatTTTctatTTTggaaataatgaaa

. . . . .
gcaaaggcttagaattcttagttatgaagaatgggacagcggtgcacttgctgtgtttca
```

ggtcctttacttacagtcacgtgtttatttcattccccagcagcccataatggttggtttt

cttcataatgcatgtgaagaaca

Exon 23 | Start: 161308 | End: 167691 | Length: 6383

.
ccccccccccctcacctccttgctggaaatagtcatagaaataccaatttactcttctg

.
cttgatatatttagttgatagtagttgctatttgataattcgctgttactttatgtattct

.
gtgcacaaaaagaagctggaattctggggcaagaggtggctggtgagtggcataagctct

.
ctgaagcaggacagtgtgaaggaaggtcatcatccacaccttcggactgtagcatagcc

.
ttggcccatgtgatatgtatctcttttttcctaaacttttgatttacttctgtgttttca

6471	6481	6491	6501	6511	6521
GGAAATGGGAATGTCCGTGGCATCAGTGTGACATCTGCGGAAGGAAGCAGCCTCCTTCT					
K W E C P	W H Q C D I C G K E A A S F C				
	2161			2171	

6531	6541	6551	6561	6571	6581
GTGAGATGTGCCCCAGCTCCTTTTGTAAAGCAGCATCGAGAAGGGATGCTTTTCATTTC					
E M C P S S F C K Q H R E G M L F I S K					
	2181			2191	

6591	6601	6611	6621	6631	6641
AACTGGATGGGCGTCTGTCTTGTACTGAGCATGACCCCTGTGGGCCCAATCCTCTGGAAC					
L D G R L S C T E H D P C G P N P L E P					
	2201			2211	

6651	6661	6671	6681	6691	6701
CTGGGGAGATCCGTGAGTATGTGCTCCCCAGTACCGCTGCCTCCAGGGCCAAGCACTC					
G E I R E Y V P P P V P L P P G P S T H					
	2221			2231	

6711	6721	6731	6741	6751	6761
ACCTGGCAGAGCAATCAACAGGAATGGCTGCTCAGGCACCCAAAATGTCAGATAAACCTC					
L A E Q S T G M A A Q A P K M S D K P P					
	2241			2251	

6771	6781	6791	6801	6811	6821
CTGCTGACACCAACCAGATGCTGTGCTCTCCAAAAAGCTCTGGCAGGGACTTGTCAGA					
A D T N Q M L S L S K K A L A G T C Q R					
	2261			2271	

6831	6841	6851	6861	6871	6881
GGCCATTGCTACCTGAAAGACCTCTTGAGAGAACTGACTCCAGGCCCCAGCCTTTAGATA					
P	L	L	P	E	R
			P	L	E
			R	T	D
			S	R	P
			Q	P	L
			D	K	
	2281			2291	
6891	6901	6911	6921	6931	6941
AGGTCAGAGACCTCGCTGGGTCAGGGACCAAATCCCAATCCTTGTTTCCAGCCAGAGGC					
V	R	D	L	A	G
			S	G	T
			K	S	Q
			S	L	V
			S	S	Q
			R	P	
	2301			2311	
6951	6961	6971	6981	6991	7001
CACTGGACAGGCCACCAGCAGTGGCAGGACCAAGACCCCAGCTAAGCGACAAACCCTCTC					
L	D	R	P	P	A
			V	A	G
			P	R	P
			Q	L	S
			D	K	P
			S	P	
	2321			2331	
7011	7021	7031	7041	7051	7061
CAGTGACCAGCCCCAAGCTCCTCACCTCAGTCAGGTCCCAACCACTGGAAAGACCTCTGG					
V	T	S	P	S	S
			P	S	P
			S	V	R
			S	Q	P
			L	E	R
			P	L	G
	2341			2351	
7071	7081	7091	7101	7111	7121
GGACGGCTGACCCAAGGCTGGATAAATCCATAGGTGCTGCCAGCCCAAGGCCCCAGTCAC					
T	A	D	P	R	L
			D	K	S
			I	G	A
			A	S	P
			R	P	Q
			S	L	
	2361			2371	
7131	7141	7151	7161	7171	7181
TGGAGAAAACCTCAGTTCCTCACTGGCCTGAGACTTCCGCCGCCAGACAGACTGCTCATT					
E	K	T	S	V	P
			T	G	L
			R	L	P
			P	P	P
			D	R	L
			L	I	T
	2381			2391	
7191	7201	7211	7221	7231	7241
CTAGCAGTCCCAAACCCAGACTTCAGACAGGCCTACTGACAAACCCCATGCCTCTTTGT					
S	S	P	K	P	Q
			T	S	D
			R	P	T
			D	K	P
			H	A	S
			L	S	
	2401			2411	
7251	7261	7271	7281	7291	7301
CCCAGAGACTCCACCTCCTGAGAAAGTACTATCAGCTGTGGTCCAGACCCTTGTAGCTA					
Q	R	L	P	P	P
			E	K	V
			L	S	A
			V	V	Q
			T	L	V
			A	K	
	2421			2431	
7311	7321	7331	7341	7351	7361
AAGAAAAAGCACTGAGGCCTGTGGACCAGAATACTCAGTCAAAAAATAGAGCTGCTTTGG					
E	K	A	L	R	P
			V	D	Q
			N	T	Q
			S	K	N
			R	A	A
			L	V	
	2441			2451	

7371	7381	7391	7401	7411	7421
TGATGGATCTCATAGACCTAACTCCTCGCCAGAAGGAGCGGGCAGCTTCACCTCATCAGG					
M	D	L	I	D	L
	T	P	R	Q	K
			E	R	A
			A	A	S
				P	H
				Q	V
	2461			2471	
7431	7441	7451	7461	7471	7481
TCACACCACAGGCTGATGAGAAGATGCCAGTGTGGAGTCAAGTTCATGGCCTGCCAGCA					
T	P	Q	A	D	E
	K	M	P	V	L
			E	S	S
			S	S	W
				P	A
				S	K
	2481			2491	
7491	7501	7511	7521	7531	7541
AAGGTCTGGGGCATATGCCGAGAGCTGTTGAGAAAGGCTGTGTGTCAGATCCTCTTCAGA					
G	L	G	H	M	P
	R	A	V	E	K
			G	C	V
			S	D	P
				L	Q
				T	
	2501			2511	
7551	7561	7571	7581	7591	7601
CATCTGGGAAAGCAGCAGCCCTTCAGAGGACCCCTGGCAAGCTGTTAAATCACTCACCC					
S	G	K	A	A	A
	P	S	E	D	P
		W	Q	A	V
			K	S	L
				T	Q
	2521			2531	
7611	7621	7631	7641	7651	7661
AGGCCAGACTTCTTTCTCAGCCTCCTGCCAAGGCCTTTTTATATGAGCCAACAACCTCAGG					
A	R	L	L	S	Q
	P	P	A	K	A
		F	L	Y	E
			P	T	T
				Q	A
	2541			2551	
7671	7681	7691	7701	7711	7721
CCTCAGGAAGAGCTTCTGCAGGGGCTGAGCAGACCCAGGGCCTCTTAGCCAATCCCCGG					
S	G	R	A	S	A
	G	A	E	Q	T
		P	G	P	L
			S	Q	S
				P	G
	2561			2571	
7731	7741	7751	7761	7771	7781
GCCTGGTGAAGCAGGCGAAGCAGATGGTCGGAGGCCAGCAACTACCTGCACTTGCCGCCA					
L	V	K	Q	A	K
		Q	M	V	G
			G	Q	Q
			L	P	A
				L	A
				A	K
	2581			2591	
7791	7801	7811	7821	7831	7841
AGAGTGGGCAATCTTTTAGGTCTCTCGGGAAGGCCCCAGCCTCCCTCCCCACTGAAGAAA					
S	G	Q	S	F	R
		S	L	G	K
		A	P	A	S
			L	P	T
				E	E
				K	
	2601			2611	
7851	7861	7871	7881	7891	7901
AGAAGTTGGTAACCACAGAGCAAAGTCCCTGGGCCCTGGGAAAAGCCTCATCACGGGCAG					
K	L	V	T	T	E
		Q	S	P	W
			A	L	G
			K	A	S
				S	R
				A	G
	2621			2631	
7911	7921	7931	7941	7951	7961

GGCTCTGGCCCATAGTGGCTGGACAGACACTGGCACAGTCTTGCTGGTCTGCTGGGAGCA
L W P I V A G Q T L A Q S C W S A G S T
|2641 |2651
|7971 |7981 |7991 |8001 |8011 |8021
CACAGACATTGGCACAGACTTGCTGGTCTCTTGGAAGAGGGCAAGACCCCAAACAGAGC
Q T L A Q T C W S L G R G Q D P K P E Q
|2661 |2671
|8031 |8041 |8051 |8061 |8071 |8081
AAAATACACTTCCAGCTCTTAACCAGGCTCCTTCCAGTCACAAGTGTGCAGAATCAGAAC
N T L P A L N Q A P S S H K C A E S E Q
|2681 |2691
|8091 |*11 |*21 |*31 |*41 |*51
AAGAGTAGTACCAATCAATGTCACATGAACAAACAAGCTGCCCCCAGGGTACCATTGTTGGG
K *
|*61 |*71 |*81 |*91 |*101 |*111
GAGGGGAAATCTTTTCTTTCTTTCCCCCTTAAAAAAAACACATCTGCCCCGAACACTTT
|*121 |*131 |*141 |*151 |*161 |*171
CCCAGTGTATTCTTTCTCATATCCCAACACTCAGAACTCTTGTGACATTAGCCAGTGG
|*181 |*191 |*201 |*211 |*221 |*231
GGGCTTATGGTTGTGTGAACCATGTATGAAAAATCCAGTGGGCCCCAACCAAGGAGACAGA
|*241 |*251 |*261 |*271 |*281 |*291
CAGACTTGGGTCTCTTTCCCCCAACTTTTCCACATGGTCATCGTGAAATAAAAAGTCCAC
|*301 |*311 |*321 |*331 |*341 |*351
TCTGGAGTCAAGTATGGAATTCAATTCCGCTGGTCAGGTTGGAAGGTATAGGGGCTCTCA
|*361 |*371 |*381 |*391 |*401 |*411
AAGCGATTTCCTCAACCAGACAGAGCCCCATTGAGGGCACCTAGGAACCCTTGGGAGGAA
|*421 |*431 |*441 |*451 |*461 |*471
ATGGTGTCTTTCAAATCAGTGGCGATTTCCTGAGCATTACCGTGTCTAGGCCGGGTGC
|*481 |*491 |*501 |*511 |*521 |*531
TAGTCACTGATGAGAGATACAGGCCTCATCCCTGTGAGCCTGGATTCCAAGGCTTTTCAGG
|*541 |*551 |*561 |*571 |*581 |*591
AACCTTTGACCAGGAAGTAACAGGAAGTTCTGAGGGGCCCTGGGGCTTTAGACTCATTTT
|*601 |*611 |*621 |*631 |*641 |*651

GAAATGTCCTTTGTGGCACCAGAAAGTGGTTGTGTTGAGGAAGTGTCTCTTGGCTGCGGTG

 |*661 |*671 |*681 |*691 |*701 |*711
TGCATGGGTGCGTGTGCATGCGCGCACACTCACAGAGGTCTCCTCTATAGATGCAAGGGT

 |*721 |*731 |*741 |*751 |*761 |*771
GCTGCATTGAGGCCAGCAAGGCTGTGGCTGTGGGTCGCCGCTGCTGCTTTTGTCTGGG

 |*781 |*791 |*801 |*811 |*821 |*831
CTGTGCAGAGTCTCAAGATCAGTCCTTGGAGGAGCAGGTGGTCAGGGGCAGTCGGGCTCT

 |*841 |*851 |*861 |*871 |*881 |*891
GTGCGAATGTAGATTTCCAGCAGTGGAAGAAGCATTGGCAAGCTTCTTTTCTTTGCT

 |*901 |*911 |*921 |*931 |*941 |*951
TTTGTCTTACCTATTTTCTCTTTGTACATGAATCCACCCATCCCTATTTCCCTAAAA

 |*961 |*971 |*981 |*991 |*1001 |*1011
CACTCAGGTGCTTTTCTAGATTTTCTAGAGCCTCGGGCAGTGGACATAGGGAATCTCTGCAAG

 |*1021 |*1031 |*1041 |*1051 |*1061 |*1071
CTCTGAGCTAGACACACCAGCTTCAGGAAGAGTACCAGATCCTGATGGGAAATTTCTTTT

 |*1081 |*1091 |*1101 |*1111 |*1121 |*1131
CCCCATTCTTTTCCCTCCTGAGTGGAGGGAGTCCTCTTCTTCGCCTCCCTGAGAATTGC

 |*1141 |*1151 |*1161 |*1171 |*1181 |*1191
TGTGCTCTGTATTGAGAGCACCTGCCTGCTGACTTAGCTCAAAGGCAAGCCAGAACCCTT

 |*1201 |*1211 |*1221 |*1231 |*1241 |*1251
CCCTGAAGACTGGCAAGAGGTGGTGTTTAGAGCAACGTCCAGGCTAAGAGATGACTCCTA

 |*1261 |*1271 |*1281 |*1291 |*1301 |*1311
TTAACTGCTGATTATCTGTTACTGCTGCCCTGAGCTGGGGCCCAAGGGCTGGGAAATCTG

 |*1321 |*1331 |*1341 |*1351 |*1361 |*1371
TTGGTGCTACCCTGCCCTACCATTACCCAGCTCACAGACTGCCAACAGGAAGTGCTGTT

 |*1381 |*1391 |*1401 |*1411 |*1421 |*1431
TGGCTAGTTTCTCCACTTGTCTACCCCTCCTTTGTCCTTAGACCAACATGTTTACCTC

 |*1441 |*1451 |*1461 |*1471 |*1481 |*1491
TCTGCTTTGCCAACTTAGCCAGCAGGCCATCCCCGGCCCTAACGTCTCCTGGCCATTATC

 |*1501 |*1511 |*1521 |*1531 |*1541 |*1551
TCTTAGTTATGGCTTTACGCTCTCAATAGGATTCTGTATTGGTCCCAATTTCTCAAG

*1561	*1571	*1581	*1591	*1601	*1611
TTCTTATTGAGGTTACTCCCATCAATTCCACGAGGGAACAGTAGTTATTATAGAAGCAT					
*1621	*1631	*1641	*1651	*1661	*1671
TTGCGCTTTATCTAAAGATTAATAAATAGAATCTGCTTTTATTCCCAAAGTCTGTCTCTG					
*1681	*1691	*1701	*1711	*1721	*1731
AGGTTGAGACACTTGAATCAGGCAGAGGGACGAGGCTGGGCAGGGCTGTCCTGAGTTTA					
*1741	*1751	*1761	*1771	*1781	*1791
GGGGCCTATCCCTGCATTTCACTGAGACCTCGGAATCTCCTCTGTGAATTCCACCTGCCT					
*1801	*1811	*1821	*1831	*1841	*1851
AGTTCTCCCTTTTCATCCTCTCTCTCTTCCCACATCATCAAAGAGGAAAAGCTCTTTGTT					
*1861	*1871	*1881	*1891	*1901	*1911
CAAAAGGAAGAGAAAACGTAAAGCATCTTATTTTCTTTTAAAAGAATTTTAAACCATGAA					
*1921	*1931	*1941	*1951	*1961	*1971
AAAGATATTTTAAAGAAATTCACCGAGAACATTAAAGTTCATTATATTAAGTATTTATC					
*1981	*1991	*2001	*2011	*2021	*2031
ATGTGTGAGAATAATAAATATATAACTGCAGCTAGTAGGTCCCTTTCCCTAATCTTTTAG					
*2041	*2051	*2061	*2071	*2081	*2091
GTGATATGAGTAGGTTTGCTTGCTGCCAGTCCTGTGCCCTTTTCTCTCCAGTCATCTGT					
*2101	*2111	*2121	*2131	*2141	*2151
AGTTGTGATCAGAAAAAGGTATCTGCACTGCACTGTGAGTCTCCTTTCACTATGTTGT					
*2161	*2171	*2181	*2191	*2201	*2211
GTGTTAAATTACCGTAGCTCTTTGTTTCATGAAATAAACTGTGAATTTGGGGGGGGCGGG					
*2221	*2231	*2241	*2251	*2261	*2271
GGGAGGGCGTGAGGCCATGTAAAAATTTCCGTGGAGAAGTTTGATTCTAAAGTAGCTT					
*2281	*2291	*2301	*2311	*2321	*2331
CTCTAAAGTAGGCTTTGGTAGGTAATCAACTTGACAGCAGTCTAGATGTCTCACAGACA					
*2341	*2351	*2361	*2371	*2381	*2391
GGAGGGAGTGAGGGAAAGGGGCCATGATTGGCTGCTTTGTGGTTTTATTTTGGTTCTTTC					
*2401	*2411	*2421	*2431	*2441	*2451
CATTCTCCGCCATTTCATTGGAGGCTTCGTTCCAGACCTGCCTGGGAAAACAGCTTCTGAG					

*2461	*2471	*2481	*2491	*2501	*2511
CCATTTTGGGAGCAGTTCTTCATCTGAATGGATGGACATCTGGGCTTCCTTCAAGGGCC					
*2521	*2531	*2541	*2551	*2561	*2571
ATTGAATGGGAACTAGAAAACCACTGGAACTAGAAATTTGAGCTATTGGGCCACCAGT					
*2581	*2591	*2601	*2611	*2621	*2631
AGCAGCATGTGATACTAGATGGTTAAAATCATGAAAGCAGTCACTATCCAATTAGAAGCA					
*2641	*2651	*2661	*2671	*2681	*2691
GAGTCACAACAACTGTTGGGAAATGTGACTCTTGGAGGAAGGTGGGGAGGGAGTGGCCTT					
*2701	*2711	*2721	*2731	*2741	*2751
GCCAGCCCTGTGGGACGTCCCTGAAGTTTGTAAATAAGACCCCTTTTCCAAAGGGATGTG					
*2761	*2771	*2781	*2791	*2801	*2811
AATTGGAGTGAAAAGGAAATCTTTCATCTTAGAAAACCTTCTGGTCCTTAACGCAGGGTGG					
*2821	*2831	*2841	*2851	*2861	*2871
TATTTGGGTATGTGCTTGGAATTGAGATCTCAAGAGTGTTGCCTTGAGCCAGCTCCC					
*2881	*2891	*2901	*2911	*2921	*2931
CAGGAGGCCTTTTCCAGGGACAAGGCAAAAGTTGAAATTCTCCATGGGTAGCTAGAAAGC					
*2941	*2951	*2961	*2971	*2981	*2991
CAATACATCTAGCCCTGCTAAGTCAGAAAAAGATTATGAAAAATGTTGAAATTTACATTC					
*3001	*3011	*3021	*3031	*3041	*3051
AAAGCCTCATTTGCTTATCTTGCTGGAGCCAACCCAGTCTAATAGCAAAATAGCTGTCAT					
*3061	*3071	*3081	*3091	*3101	*3111
TGATACAGAAACATCCTCATTTTTAAATGTCTGCTTTACCCTGTTACTGAGTTTGAGATG					
*3121	*3131	*3141	*3151	*3161	*3171
ACTTAAATCACTGTGTTGACCCTCTTCTGAACCAAATCTTTAGCATTGATGAAAATAGTT					
*3181	*3191	*3201	*3211	*3221	*3231
ATTTTATTCTTTACATCCTTCACCCACACTATGGTCAGGGCATGAAACACCCTGTTGAT					
*3241	*3251	*3261	*3271	*3281	*3291
CCCTTCCCAGGCTCGGCACTGTCTGCTCACTGGAGCCGACTCCCAGGTTGTAATTCTAA					
*3301	*3311	*3321	*3331	*3341	*3351
TGTTGCCTCATGAGAACAGAATGGCAGAAAGTTTAGTCCTGACAGATTCCCCCATAGGGA					
*3361	*3371	*3381	*3391	*3401	*3411

GTAATGAGGACAGCATGAAACTTGGATAGGTTTTACCCTTAGTCCCTATAAGGTGGATTT

|*3421 |*3431 |*3441 |*3451 |*3461 |*3471
TACTAAGGTTTTTTAAATGATACTGTCATCCTCTTGGGGTTTATCAGCCAGGTTAGAGGA

|*3481 |*3491 |*3501 |*3511 |*3521 |*3531
GCCCAGTGTCTAACCTCTCTCAGATCATGGCAGAGAAGGAGCTGCCTCCAGCCCCCTTC

|*3541 |*3551 |*3561 |*3571 |*3581 |*3591
TTGCTGAGTTTCATTTGAGCAGTTCCATGTGTAGACATTCCAAGTCACTGCTTGGTAGTT

|*3601 |*3611 |*3621 |*3631 |*3641 |*3651
GCTGTGGGAGCCTGTCATTGGCTATGGCCAGTTAGTTCTCAGCTGAGCTTCCTAGGGCCA

|*3661 |*3671 |*3681 |*3691 |*3701 |*3711
GTGCAACAGGGCCAGAGGCTGCTATAGTGTAATTGAAATAAGAATAGATCATTGTTTTG

|*3721 |*3731 |*3741 |*3751 |*3761 |*3771
TACACACACACAATAAAATGTAATGATGGTGCTAATTTACGGGTATAAATAAGCACTGCC

|*3781 |*3791 |*3801 |*3811 |*3821 |*3831
AAGGGTTGAGGGACTGGCAGCTCAAGAAACCCGGGTTCTGTGTTGGGAGGAGATTTTATG

|*3841 |*3851 |*3861 |*3871 |*3881 |*3891
TAGAAAAGTTTGAGGCTTTGTTAAAAGTGGGAGAAGGAAGATCCTCAGTGAAGCCTGCA

|*3901 |*3911 |*3921 |*3931 |*3941 |*3951
CCCAACCCTGGAGTGGCCAGTGCAATCCAGAGGTGGAAGAGATCCTATATCCAGGTGAA

|*3961 |*3971 |*3981 |*3991 |*4001 |*4011
GGTGGCCATTGAGTTTCTCAGGGCTGGGGCCACCTTGTCATAGCCTCCGTCCACGCTGC

|*4021 |*4031 |*4041 |*4051 |*4061 |*4071
CTGGAGCAGGTTGTTAGAGAGCTCTGGTTGTTGGGTCTTCTCAGCTCCCTTCTGCCCT

|*4081 |*4091 |*4101 |*4111 |*4121 |*4131
CTCTACCTCTTCCACTCATGGAAGCCCCTCTACTGCTTATGAAGATTAAGGGTAGTATTT

|*4141 |*4151 |*4161 |*4171 |*4181 |*4191
TCTAAGGAAGTGGAAGAATTAAGTAGAAATCCACAACCTCGGAAGAAGTGTTCGAGT

|*4201 |*4211 |*4221 |*4231 |*4241 |*4251
TTAACATGCGCTGTTTCTGCTTATGTGGTTCCTTCTCTAGAGCTGCTTCCCATGGCTTT

|*4261 |*4271 |*4281 |*4291 |*4301 |*4311
CAAAACATCAGGTTATTGTGGGGCTTCAGGTGTAAGGTCCTGGAAGTTCAGCAAAGTTTC

|*4321 |*4331 |*4341 |*4351 |*4361 |*4371
 GTGGACAAGACATGGGCACAGAGAGTAGAAGCAGAAATAAATGGTTCTATGTTTTCAACT

|*4381 |*4391 |*4401 |*4411 |*4421 |*4431
 TCCAGGGTTGGGGCAGGCCAGAGCAAGGCGGTCTCATCGAGGTGGGTGCTACCTGTGTGT

|*4441 |*4451 |*4461 |*4471 |*4481 |*4491
 GTGTAGATGAGTGTGCTGAAGGTGGGGAGGGCAGCACACAGCAGCTCATGGCAGAGCCGC

|*4501 |*4511 |*4521 |*4531 |*4541 |*4551
 CTCTAGGTCCTTGGCAAAGAGGCAAGCTGACGATAGACATCTACCTATATTGTTAAGAAA

|*4561 |*4571 |*4581 |*4591 |*4601 |*4611
 GGGGTCGGGGGATCAGCCAAGGTCCATCATTGCTTTTTTGCCGCGCCCCCCCCCCCCCG

|*4621 |*4631 |*4641 |*4651 |*4661 |*4671
 CCCCATAGATTGTCAGCTGTAAGTGAACTCCTAGTGAAAAAGAGGGGAGCCCTGTGTT

|*4681 |*4691 |*4701 |*4711 |*4721 |*4731
 AGGAGTCCCATAAACATGTACTGTAATTCTTTGTATATAGAAAAAAATTTACTGTAAA

|*4741 |*4751
 GTAAAGTTTAACTTTACTCATATAtggcccttgccctgtgttttgttttattggctgtgg

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 ggagttgtagtctaacaggagggaggattgtttgggggtgagagcagaagccagccccaga

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 gatagtacgaggtggggggcgggggcgcgaggatactgtgaagctaagcccttcctcca

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 actcatgaaggaagggcagtttga

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