

1'-188355- 391 520
8'-3222325
2'-190008- CCCGCTGCGGGGAGAAGGTGGCGGCAGCCGGTTGAGGGGCAATCCCTTCCCTCGAACCCACCAGGTCTGCAAACGGCAAATCTCGAGGATGACGACCGAGGGAGGTGAGGCGGTTGGGTTCCCGAGGG
3'-1677017 GTGCGAGCAACAACACGATCTTGCGCATAGGCCCGCGTACCTTTTCTAACAGTTTGACGGCCATTGATATTCTGCCATTGCGCGCAGGATCAATTCCCAACCGCGCAATCCACACGGTCTGCGGCAGCGC
4-1853481- AAGATTGTCCCTTCTCCGCAGCTCTGAGGCTCCACCAACTACAGCGCATTTGGGGAATTGATTGATGCAAGACAGAGACGACCACGCGTTGCCGGAGCAAAGTGCATCATCCGAAGAGAATACGGGACTAG
10-70201-7 TCGAGAACATAGAGTTGCCATCCCGCCGCCGATCGCGCGGCCAGCGCAGGAATGCCGATCTCAGAAACAGGCTGAGGACGTTCTTCTACCGCAGGTTTTTCC
5'-2402373 CCCGCTGCGGGGAGAAGGTGGCGGCAGCCGGTTGAGGGGCAATCCCTTCCCTCGAACCCACCAGGTCTGCAAACGGCAAATCTCGAGGATGACGACCGAGGGAGGTGAGGCGGTTGGGTTCCCGAGGG
7'-2978252 CGGCACCTTCTCCCCGAGGCGGGGAGAAGGGACAAGCGCGCCGACTGAACCCCGCATTCACCGCCCGCCGAGGGCGCGAGCGGGGCGCGGCATATCCCTTCTCCCCGCCTGCGGGGAGAAGGTGGCG
6-2602149- CGGGATCCGGGTGGGTATCAGCAATATCCCTCTGCCCTGCCGCGCATCTCCCCGAGGGCAGATTGTCCCGAAGTAAGGCCCTGCCCTCGGTCTGCCCCCTACCCCTAAACCTCTCCCCGCAAGCGGG
9'-3224074 CCGGCACCTTCTCCCCGAGGCGGGGAGAAGGGACAAGCGCGCCGACTGAACCCCGCATTCACCGCCCGCCGAGGGAGCGAGCGGGCGCGGCATATCCCTTCTCCCCGCCTGCGGGGAGAAGGTGGCG
ConsensusC.....C.....g.....g.....g.....g.....g.....g.....g

1'-188355- 521 650
8'-3222325
2'-190008- ATCCCGGGATCCATTTCATCAGGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTTACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
3'-1677017 TTCTTACACCATCCGGGCTCCGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTCACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
4-1853481- AAACCTGGAAGAAACCGATTGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTCACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
10-70201-7 TCGTCTGCTCGCGGCCCTTCGGGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTCACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
5'-2402373 ATCCCGGGATCCATTTCATCAGGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTTACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
7'-2978252 GCAGCCGGTTGAGGGCAAGCGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTTACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
6-2602149- GCGAGGGGACGAGTTTCGCTTTGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTCACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
9'-3224074 GCAGCCGGTTGAGGGGCAAGCGGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGTTACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG
Consensusg.....GGTAGTGTGCTGAAGGTTCTGCAAATTCACCTGAGAGAGGCGGTATGGCAGGCTGGTATGTTGACGT.ACCTGATTCCCTGGAAGGAACGCCACCATGACCAAGACTG

1'-188355- 651 780
8'-3222325
2'-190008- AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
3'-1677017 AAGGTAGGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
4-1853481- AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
10-70201-7 AAGGTAGGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
5'-2402373 AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
7'-2978252 AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
6-2602149- AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
9'-3224074 AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGGGCTGCGCGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA
Consensus AAGGTAAGACAGCCAGCGCCGCGTCAAAGACATTTTGCTTTCGAACCCCGATGG.CTGCAGGAGGTGATCCGCACGGTGATGCAGGAGGTGCTGGAAGCGGAGATGGACGAGGCGCTGGGAGCTGCGAA

	781		910
1'-188355-			
8'-3222325			
2'-190008-	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
3'-1677017	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
4-1853481-	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
10-70201-7	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
5'-2402373	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
7'-2978252	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
6-2602149-	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
9'-3224074	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
Consensus	AGGCGAGCGCACGCCGGAGCGGCTCGGCTACCGTTCGGGCCACTATGGCCGCACGCTGATCACGCGGGTGGGCAAGCTCGAGCTGCGGGTGCCGCAGGATCGCTCGGGGCAC	TTCTCCACCGAATTGTTC	
	911		1040
1'-188355-			
8'-3222325			
2'-190008-	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
3'-1677017	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
4-1853481-	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
10-70201-7	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
5'-2402373	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
7'-2978252	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
6-2602149-	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
9'-3224074	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
Consensus	GAACGCTATCAGCGCTCCGAGCGGGCGCTGGTGGCAACCTTGCGGAGATGTATGTGCAAGGGGTGTCGACGCGGAAGGTCAAGGCATCACCAGGAGCTGTGCGGCCATGCCTTCTCGGCGTCATCGA		
	1041		1170
1'-188355-			
8'-3222325			
2'-190008-	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
3'-1677017	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
4-1853481-	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
10-70201-7	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
5'-2402373	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
7'-2978252	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
6-2602149-	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
9'-3224074	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		
Consensus	TCTCGGCGATCAACAAGCGGCTGGACGAGAGCCTGAAGGCCTTTGCCGAGCGCTCGCTTGAAGAGCCGTTTGCCCTACCTGATCCTCGATGCCCGTTATGAGAAGGTGCGCGAGGCCGGTGTGGTGATGAG		

1171 1300

1'-188355-
8'-3222325
2'-190008-
3'-1677017
4-1853481-
10-70201-7
5'-2402373
7'-2978252
6-2602149-
9'-3224074
Consensus

CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG
Consensus CCAGGCGGTGTTGATCGCTGTCGGCATCGACTGGGACGGACGGCGGCAGATCCTGTCGGTCGAGATGGCCGGCCGTGAAAGCCGTTCCGCCTGGAAGGACTTCCTCGTCAGGCTGAAAGGGCGCGGTTTG

1301 1430

1'-188355-
8'-3222325
2'-190008-
3'-1677017
4-1853481-
10-70201-7
5'-2402373
7'-2978252
6-2602149-
9'-3224074
Consensus

AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC
Consensus AAGGGCGTCGAACTGGTGGTCTCCGACGACCATGCCGGTCTCGTCGCGGCAATTGGCGAGGTGATCCCGBAAGCTGCTGGCAGCGCTGTTACGTGCATTTCTCAGGAACGCCCTCGATCACCTGCCGC

1431 1560

1'-188355-
8'-3222325
2'-190008-
3'-1677017
4-1853481-
10-70201-7
5'-2402373
7'-2978252
6-2602149-
9'-3224074
Consensus

TGTGATGATTCTCTCCCTTTTCATCATCATGGCCACCGCACAGAAATTCCTGACAGTCCCGTCCGCTATCCGCGCCTGACCTCCTG
ATGAAACCGGCCACCGCACAGAAATTCCTGACAGTCCCGCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG
Consensus GCAAACATGGCGACGATTGCCTGCAGGAGCTTCGATGGCTCTATGATCGCCGCGACCTTGATGAGGCGAAGGCCGATCTCGCCGCGTGGCTGGGAAAATGGTCGGTCCGCTATCCGCGCCTGACCTCCTG

	1561		1690
1'-188355-	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
8'-3222325	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
2'-190008-	TGTCGCGTGGGCCGGTTTCATC		
3'-1677017	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
4-1853481-	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
10-70201-7	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
5'-2402373	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
7'-2978252	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
6-2602149-	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
9'-3224074	GGTTGGGGACTGTGAGGAATTCTGTGCGGTGGGCGCATGATGATGAAAAGGAGAGAATCATCACAA		
Consensus	GGTTGAGGAAACCATCGAGCAGACGCTGACCTTCTTTTCGTCTGCCGCGCCAGCATCACAAAGCACCTCAAGAGCACCAACATGCTGGAACGCCTCAACGAGGAAATCCGCCGCAGAACCTACGTCGTGCGC		
	1691		1820
1'-188355-	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCCCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
8'-3222325	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
2'-190008-			
3'-1677017	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
4-1853481-	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
10-70201-7	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
5'-2402373	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
7'-2978252	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
6-2602149-	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
9'-3224074			
Consensus	ATCTTTCCCAACACCGAGAGCTGCCTACGACTCGTCCGCGCGCTCGCCGTCGAAACCCACGAAAACCTGGATGGAGGCCAATCGCTACATCAACATGGACGACCTGCGAGAGCACAAGAAACTCGCACTCC		
	1821		1950
1'-188355-	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTTTCATCAGCAGTATCCGCCGCACCAGCCCGCAAGAGGTGTGTGCCT		
8'-3222325	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTGGGCAAGCCCGACCGAGCGGGGTTGAGGCGGTTGGGTTCCCGAGGGATCCCCTTCATGAGCAGTATCC		
2'-190008-			
3'-1677017	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTCGGGCTCCCTACATCGGTCCCGAGAAATCGGAACCGATTGTTCGGAGGCGCGATGCCGCATGCAACGTCTC		
4-1853481-	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTAACGATTCCGAAGCGGGCGGAAGTCGGTTGGCGTCATCCGCGATGCCGATCCCGGACGCGCTGAAGGCGCT		
10-70201-7	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTGCCTTCGGGAGATGCCGGGCGCAGGTAGATCACTTCCCAACGCACTAAGGCACGTTGAGATTGGGGATA		
5'-2402373	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTCATTTTTCGCGGGAGAGGGGACAAGCCGCGAGGCCGCGAGTC		
7'-2978252	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTGGGCAATCCGACCGAGCGGGGTTGAGGCGGTTGGGTTCCCGAGGGATCCCTTTTCATGAGCAGTATC		
6-2602149-	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCTTTCGCTTTTGTTCGTCGAGGCTGACGCAGACGCGCAACCGTGT		
9'-3224074			
Consensus	GTCAAGCCGCATGACAGCAGCATGACCGCCCAATTTTGCAGAACTTGACGCACACAACCT.....g.....c.....		

REP sequences are in green background