

logo		
Father	.....CTTTGT.TGCCTTCTACAAAA	20
Mother	.....	0
Sister	TAAACTTTTCATGCACACGTTGTGCGAGTCAGTCCATACCCAAACAACACCTTTTCTTGCCGCCTTTAGAGAGGAGGGAGGGAGGTTTCTGCAAGCAGTCTTTTCGGTATGTCTCACTCCAAA	120
Brother	.....	0
Proband	.....TCCTGCACTGCAAAGAGCAATGGGAGAGCAGGTCCCTGCAAGCAGC..ATCCTGTATGGCTCCGTACAAA	68
RefSeq	.....	0

logo		
Father	AAACAAAAAATATTTT.TGTGGGAAGCCCCA...CGCACACTCCTCCCGGGGG...GCTA.CAGAACCTCAGGTGGTTCCTTCCCTCCGG.GTGAAGTCTGGACGTCAGTTCA	131
Mother	.....CGATGATGGTCTCTCCTACGAGGGCGAGGGGT...GAGGTAAGCTCC	44
Sister	GAGCAATGAGTAGTTTCTTGCGTTGAGTAAACACAA.GCGCACATCTCTCCAGAAGATGAGCTAACGTAACGTGGGTGGTTCTCCATCTCGGTGTGGGTTCGTGGTG..AGTCCT	237
Brother	.....	0
Proband	AAGCGATGCTGAGTTATTCGTCTGAGTCAGCTGCAATGCCAGCTCACCTGCCGTGAGTTACGCTAACG...TGCGAGTAGGTTTCATCAGAGG..TGAGTGGGGTGAATGAGTCAT	182
RefSeq	.....	0

logo		
Father	TTGTGGA.GGCATATCCAATAACCT.CCCAGGCAGGCACACTTCTTTCTC..AGAGACAGACAGAGGATGAG.TGAGCTCAGTCAAGCGGGCTGCTTCTGTCTCAGGGGAGGG	246
Mother	TTTTTG..GACGCTGTTCAATAATTATCCCTCTGGC.GGCCACACTTCTTTCTCC..CTGAGAAGCT.ATGGATGTC.GACCTCAGTCAACCGAGGAGCTTCTGTCTGAG.GGAGGG	156
Sister	TTGTGGATGGCACATCCAACAATAACTACCCACGCCGGCACACTTTCTTTCTCTCAGTGAGAGGCTGAGGATGAGATGAGCTCAGTCAAGCGGGCTGCTTCTGTCTCAGTGGAGGG	357
Brother	.....	0
Proband	TTT.....ACGGAGCC.ATCATAACT.ACACACACAGCCACACACTCCTTCG.....AGACAGACAGAGTGATGGG.TAAGGTCAGTCAAGCGGGGAGCTTCTGTCTGGTGAGGGG	286
RefSeq	.....	0

logo		
Father	GGAAGGG.TTCATTCCGGCAAGCAAGGCAGGCAGCGTTGTTGGAGGGGGGGGGGAGGAGCGGAGA.GTGAGTGG.GGGAGGCGTGAG.CAACCAACCCAGCCCTGCCACAACCCATA	362
Mother	GGAAGAGGATCTTCCGGCAGTCAAGGGAGGCGCGCTTCATTGGAGAAAAAGGGAGGCGAGCGAATAATAGAGG.GACGCCCGAAG.TGACAAGGCAAGCCCATCCACTATCGAGA	274
Sister	GGGAGGGGTTTCATTCCGGCAATCAAGGCAGAGAGCGCTTCATTGGAGAGAGGGGGGAGGAGCGGACA.GTCAGTGG.GGGGCGCG.GAG.CAGCCAGCCCATCCTAGTCACTAGCCATA	473
Brother	.....	0
Proband	AGAAGGGAAACC..TTCCGGCAGGCGAGGGAGGGGGCGGTGCGTTGAGGGAGGGGAGGAGAGAGA.GTGAGTGGAGGCACGCGCGAGGTGAGAAAGCCCTGCTATCGACAGCCAGA	403
RefSeq	.....	0

logo		
Father	CTCATTCC.TGACCTTGCTGGCTGCTCCATTTTATATAA..AGCTATGGAAAAAGAGGGGCCA.CA.TGTGCTCTGGC..TGATATGTACATGCACATGTCCTCTTTGTTTCC	475
Mother	GTCATTCCGTTCAAGCCGAGCTGCAAAGAGATTGAAAAAT..ACCTATAGAAAAATGAGGGGTCACCA.TGTGCTCTGGGCA...GAATATGACACAGGGCATGTCGCTCTCTGTTTCC	388
Sister	CTCATTCC.TGAGCTTGCTGGCGCATCCAATTTAAATAT..AGGTATGGAAAAAGAGGGAAAAA.CA.TGTTGCTCTGGGGGTATATGACACATGCACATGTCCTCTTTGTTTCC	589
Brother	.....TGTTGCTCTCTGTTTCC	18
Proband	CTCATTCCG.TGAGCTTCGGGGCGCTCCTTTATTGATAGGGTAAGCAAAAGAGGGGGGCA.CA.TGTGCTCTCTGGGGGTCTATGACACATGCGCATGTCCTCTCTGTTTCC	522
RefSeq	.....	0

logo	ATAGCTTTAAATAAAATGGGGCCAGCAAGGAAGCTCAGGAATGGGCTTTGGCAATGGCAAGGCCTTGGCTCACCTCGGGCCTCCTCTGAGTCTCTGTCCCGCTCCTCCTCCTCTTCT	
Father	ATAGCTTTAAATAAAATGGGGCCAGCAAGGAAGCTCAGGAATGGGTCTTGGCAATGGCAAGGCTTTGCTGCTCACCTCGGGCCTCCTCTGAGTCTCTGTCCCGCTCCTCCTCCTCTTCT	595
Mother	ATAGCTTTAAATAAAATGGGGCCAGCAAGGAAGCTCAGGAATGGGTCTTGGCAATGGCAAGGCTTTGCTGCTCACCTCGGGCCTCCTCTGAGTCTCTGTCCCGCTCCTCCTCCTCTTCT	508
Sister	ATAGCTTTAAATAAAATGGGGCCAGCAAGGAAGCTCAGGAATGGGTCTTGGCAATGGCAAGGCTTTGCTGCTCACCTCGGGCCTCCTCTGAGTCTCTGTCCCGCTCCTCCTCCTCTTCT	709
Brother	ATAGCTTTAAATAAAATGGGGCCAGCAAGGAAGCTCAGGAATGGGTCTTGGCAATGGCAAGGCTTTGCTGCTCACCTCGGGCCTCCTCTGAGTCTCTGTCCCGCTCCTCCTCCTCTTCT	138
Proband	ATAGCTTTAAATAAAATGGGGCCAGCAAGGAAGCTCAGGAATGGGCTTTGGCAATGGCAAGGCTTTGCTGCTCACCTCGGGCCTCCTCTGAGTCTCTGTCCCGCTCCTCCTCCTCTTCT	642
RefSeq	.....	0

logo	CGAATGCCCCCTGCCCTCCATTGCCGCCAGGAATGTTCCCCCTTTCCCTGAGCCGGAGAGCATGCCCTGGGCCTTGACGGTGCTCATCCCTCAACTTGTCTCTCAAGGAGAAAGTGTGTGG	
Father	CGAATGCCCTCTGCCTCCATTGCCGCCAGGAATGTTCCCCCTTTCCCTGAGCCGGAGAGCATGCCCTGGGCCTTGACGGTGCTCATCCCTCAACTTGTCTCTCAAGGAGAAAGTGTGTGG	715
Mother	CGAATGCCCTCTGCCTCCATTGCCGCCAGGAATGTTCCCCCTTTCCCTGAGCCGGAGAGCATGCCCTGGGCCTTGACGGTGCTCATCCCTCAACTTGTCTCTCAAGGAGAAAGTGTGTGG	628
Sister	CGAATGCCCTCTGCCTCCATTGCCGCCAGGAATGTTCCCCCTTTCCCTGAGCCGGAGAGCATGCCCTGGGCCTTGACGGTGCTCATCCCTCAACTTGTCTCTCAAGGAGAAAGTGTGTGG	829
Brother	CGAATGCCCTCTGCCTCCATTGCCGCCAGGAATGTTCCCCCTTTCCCTGAGCCAGAGAGCATGTCCTGGGCCTTGACGGTGCTCATCCCTCAACTTGTCTCTCAAGGAGAAAGTGTGTGG	258
Proband	CGAATGCCCTCTGCCTCCATTGCCGCCAGGAATGTTCCCCCTTTCCCTGAGCCGGAGAGCATGCCCTGGGCCTTGACGGTGCTCATCCCTCAACTTGTCTCTCAAGGAGAAAGTGTGTGG	762
RefSeq	.....GAGAAAGTGTGTGG	14

logo	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	
Father	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	835
Mother	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	748
Sister	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	949
Brother	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	378
Proband	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	882
RefSeq	CCTGTGTGGGAATTTTGATGGCATCCAGAACAATGACCTCACCAGCAGCAACCTCCAAGTGGAGGAAGACCCTGTGGACTTTGGGAACTCCTGGAAAAGTGAGCTCGCAGTGTGCTGACAC	134

logo	CAGAAAAGTACGTCTGGGTCTCTGTGTGGACAGAGCCCAGAGCTTGCCTTGGAAATGTCCCTCTGTCCCCATGTCATGGGCTGAAAGGGCT	
Father	CAGAAAAGTACGTCTGGGTCTCTGTGTGGACAGAGCCCAGAGCTTGTCTTCTGGAATGTCCCTCTGTCCCCATGTCATGGGCTGAAAGGGAGTG	931
Mother	CAGAAAAGTACGTCTGGGTCTCTGTGTGGACAGAGCCCAGAGCTTGTCTTCTGGAATGTCCCTCTGTCCCCATGTCATGGGCTGAAAGCTA...	840
Sister	CAGAAAAGTACGTCTGGGTCTCTGTGTGGACAGAGCCCAGAGCTTGTCTTCTGGAATGTCCCTCTGTCCCCATGTCATGGGCTGAAAGGGGTA	1044
Brother	CAGAAAAGTACGTCTGGGTCTCTGTGTGGACAGAGCCCAGAGCTTGTCTTCTGGAATGTCCCTCTGTCCCCATGTCATGGGCTGAAATGGGGTTA	474
Proband	CAGAAAAGTACGTCTGGGTCTCTGTGTGGACAGAGCCCAGAGCTTGTCTTCTGGAATGTCCCTCTGTCCCCATGTCATGGGCTGAAACGGGCGT	978
RefSeq	CAGAAAA.....	141

X

non conserved

X

≥ 50% conserved