```
logo
CCACTGTGATGTTGTCAACCTCACCTGTGAAGCCTGCCAGGAGCCGGGGAGGCCTGGTGGTGCCTCCCACAGATGCCCCGGTGAGCCCCACCACTCTGTATGTGGAGGACATCTCGGAACC
Proband pri  ..........................................................................................................................  0
Proband sec  ..........................................................................................................................  0
RefSeq       CCACTGTGATGTTGTCAACCTCACCTGTGAAGCCTGCCAGGAGCCGGGGAGGCCTGGTGGTGCCTCCCACAGATGCCCCGGTGAGCCCCACCACTCTGTATGTGGAGGACATCTCGGAACC  120

logo
GCCGTTGCACGATTTCTACTGCAGCAG...TAACG...CTGGTCC.TTT.TG.TCCAGCCATCCA..CTNCCCAACACGAAG.CCTT.GTACTCAGGGTCCTTGCTTT.TCGATGAGCA.G
Proband pri  ..........................TATTAACG.ATTTGGTCCTTTGCTGCTCCAGCTCATCCCCACCNCTCAGCACGAAGCCCTT.GTACTCAGGGTCCTTGCTTTTCGATGAGGCAG  92
Proband sec  ..........................TGATAACA.TTCTCGTCCTTTTATGATCCAGCCCATCCAACATNCCCAACACGAAGACCTT.TTACTCAGGGTCCTGGCTTCTCGATGAGCACG  92
RefSeq       GCCGTTGCACGATTTCTACTGCAGCAGGCTACTGGACCTGGTCTTCCTGCTGGATGGCTCCTCCAGGCTGTCCGAGGCTGAGTTTGAAGTGCTGAAGGCCTTTGT.....GGTGGACATG  235

logo
ATCTA.C..TGACGTTGGCATGGGACC.ATGTCCAC.GGG..CACGACTGACC.TCCTC.TCATCAGGCCGTGGACG.AGCGGACAAAGATCCGGGACATCCGTTGAAGCTCCTGGCTGG
Proband pri  ATCTGCT..TGACGTTGGCATGGGTCCCATGTCCACAGGGATCACAACTGACCCTCGTCGTCGTCAGGCCGTGGACGTAGCGGACAAAGATCCGGGACATCCGTTGAAGCTCCTGGCTGG  210
Proband sec  ATCTAKC..TTACGTTGGCATGGGACCTATGTCCACTGGGTTCACGACTGACCRTCCTCMTCATCAGGCCGTGGACGAAGCGGACAAAGATCCGGGACATCCGTTGAAGCTCCTGGCCGG  210
RefSeq       ATGGAGCGGCTGCGCATCTCCCAGAAGTGGGGTCCGC.GTGGCCGTGGTGGAGTACCACGACGGCTCCCACGCCTACATCGGGCTCAAGGACCGGAAGCGACCGTCAGAGCT....GCGGC  350

logo
CCATCA.GAGCAGGA.GATGCG.GGAGTCTTCAGGGCGGTCGATCTTGCTGATGATTAGGAACAGTGTGTATTTCAAG.CCTCGCTGGTGGAGGCCACCTGGCTGCCCGCATACTTCACC
Proband pri  CCATCAAGAGCAGGATGATGCG.GAAGTCTTCAGGGCGGTCGATCTTGCTGATGATTAGGAACAGTGTGTATTTCAAGACCTCGCTGGTGGAGGCCACCTGGCTGCCCGCATACTTCACC  329
Proband sec  CCATCATGAGCAGGACGATGCG.GGAGTCTTCAGGGCGGTCGATCTTGCTGATGATTAGGAACAGTGTGTATTTCAAGGCCTCGCTGGTGGAGGCCACCTGGCTGCCCGCATACTTCACC  329
RefSeq       GCATTGCCAGCCAGGTGAAGTATGCGGGCAGCCAGGTGGCCTCCACCAGCGAGGTCTTGAAATACACACTGTTCCAAATCTTCAGCAAGATCGACCGCCCTGAAGCCT.CCCGCATCACC  469

logo
TGGCTGGCAA.GCGCCGC....AGCTCTGACGGTCGCTTCCGGTCCTTGAGCCCGATGT..AGGCGTGGGAGCCGTCGTGGTACTCCACCAC.GCCACGCGGACCCACTTCTAGGAGATG
Proband pri  TGGCTGGCAATGCGCCGC....AGCTCTGACGGTCGCTTCCGGTCCTTGAGCCCGATGT..AGGCGTGGGAGCCGTCGTGGTACTCCACCACGGCCACGCGGACCCACTTCTAGGAGATG  443
Proband sec  TGGCTGGCAACGCGCCGC....AGCTCTGACGGTCGCTTCCGGTCCTTGAGCCCGATGT..AGGCGTGGGAGCCGTCGTGGTACTCCACCACAGCCACGCGGACCCACTTCTGGGAGATG  443
RefSeq       CTGCTCCTGATGGCCAGCCAGGAGCCCCAACGGATGTCCCGGAACTTTGTCCGCTACGTCCAGGCCTGAAGAAGAAGAAGGTCATTGTGATCCCGGTGGGCATTGGGCCCCATGCCAAC  589

logo
CGCA.GCCGCTCCATCATGTCCACCACAAAGGCCTTCAGCACTTCAAACTCAGCCTCGGACAGCCTGGAGGAGCCATC.CAGCAGGAAGA.CAGGTC..CAGTAGCCTGCTGCAGTAGAA
Proband pri  CGCA.GCCGCTCCATCATGTCCACCACAAAGGCCTTCAGCACTTCAAACTCAGCCTCGGACAGCCTGGAGGAGCCATC.CAGCAGGAAGATCAGGTC..CAGTAGCCTGCTGCAGTAGAA  559
Proband sec  CGCA.GCCGCTCCATCATGTCCACCACAAAGGCCTTCAGCACTTCAAACTCAGCCTCGGACAGCCTGGAGGAGCCATC.CAGCAGGAAGACCAGGTC..CAGTAGCCTGCTGCAGTAGAA  559
RefSeq       CTCAAGCAGATCCGCCTCATCGAGAAGCAGGCCCCTGAGAACAA.GGCCTTCGTGCTGAGCAGTGTGGATGAGCTGGAGCAGCAAAGGGACGAGATCGTTAGCTACCT.CTGTGACCTTG  707

logo
ATCGTGCAAC.GCGGTTCCGAGA.TGTCCTCC.ACATA.......CAGAGTGG...TGGGGCTCACCGGGGCATCTGTGGGAGGCACCACCAGG...CCTCCCGGCTCC.....TGGCAG
Proband pri  ATCGTGCAACGGCGGTTCCGAGA.TGTCCTCC.ACATA.......CAGAGTGG...TGGGGCTCACCGGGGCATCTGTGGGAGGCACCACCAGG...CCTCCCGGCTCC.....TGGCAG  659
Proband sec  ATCGTGCAACAGCGGTTCTGAGA.TGTCCTCC.ACATA.......CAGAGTGG...TGGGGCTCACCGGGGCATCTGTGGGAGGCACCACCAGG...CCTCCCGGCTCC.....TGGCAG  659
RefSeq       CCCCTGAAGCCCTCCTCCTACTCTGCCCCCCGACATGGCACAAGTCACTGTGGGCCCGGGGCTCTTGGGGGTTTCGACCCTGGGGCCCAAGAGGAACTCCATGGTTCTGGATGTGGCGT  827
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logo		
Proband pri	GCTTCACAGGTGAGGTTGACAACATCACAGTGGCTG...CAGAAAAGAGCGAAGAAATTAAAATGGTTCAGGAAGAACCTGTGGACACTTCTGAGCCCTACA...GTGTACAATGACTTC	773
Proband sec	GCTTCACAGGTGAGGGTGACACCATCACAGTGGCTG...CAGAAAAGAGCGAAGAAATTAAAATGGTTCAGAAAGAACCTATGGACACTTCTGAGCCCTACA...GTGTACGACTACTTC	773
RefSeq	TCGTCCTGGAAGGATCGGACAAAATTGGTGAAGCCGACTTCAACAGGAGCAAGGAGTTCATGGAGGAGGTGATTCAGCGGATGGATGTGGGCCAGGACAGCATCCACGTCACGGTGCTGC	947

logo		
Proband pri	CATATTCCCACAGAAT..CTCCTCTGTTCCACCTGAACTTG....AGATCCCACGGACCATTCCACATC.....CAAGTGAGATGTCATT.GTTTAACATCTGTCCCCAAAT..AGCATG	879
Proband sec	CATATTCCCACAGAAT..CTCCTCTGTTCCACCTGAACTTG....AGATCCCATGGACCATTCCACACC.....CAAGTGAGATGTCACT.GTTTAACATCTGTCCCCAAAT..AGCATG	879
RefSeq	AGTACTCCTACATGGTGACTGTGGAGTACCCCTTCAGCGAGGCACAGTCCAAAGGGGACATCCTGCAGCGGGTGCGAGAGATCCGCTACCAGGGCGGCAACAGGACCAACACTGGGCTGG	1067

logo		
Proband pri	CCCCCCC..CCTTCAAAACACACACATAGCCGACTTCCTTTGATTCTAGAAACCAAAGCTTTAGCCCATCCTAGGATAGAAAAAACTAGCTG..CTCACAAGG................	978
Proband sec	CCCCCCA..ACTTCAAAACACACAGGTAGCCGACTTCCTTTGATTCTAGAAACCAAAGCTTTAGCCCATCCTAGGATATAAAAAAGAAGCTA..CGCAGATGG................	978
RefSeq	CCCTGCGGTACCTCTCTGACCACAGCTTCTTGGTCAGCCAGGGTGACCGGGAGCAGGCGCCCAACCTGGTCTACATGGTCACCGGAAATCCTGCCTCTGATGAGATCAAGAGGCTGCCTG	1187

logo		
Proband pri	....	978
Proband sec	....	978
RefSeq	GAGACATCCAGGTGGTGCCCATTGGAGTGGGCCCTAATGCCAACGTGCAGGAGCTGGAGAGGATTGGCTGGCCCAATGCCCCTATCCTCATCCAGGACTTTGAGACGCTCCCCCGAGAGG	1307

logo		
Proband pri	....	978
Proband sec	....	978
RefSeq	CTCCTGACCTGGTGCTGCAGAGGTGCTGCTCCGGAGAGGGGCTGCAGATCCCCACCCTCTCCCCTGCACCTG	1379

🅇 non conserved
🅇 ≥50% conserved