

5'

TACAGTGCATCCGGAAAGTATTCATAGCGCTTCACTTTTCACACATTTTTTATGTTACAGCC
 TTATTCCAAATGGATTAAATTAAGTTTATTTCTCAACATTCACACACAATACCCATAAT
 GACCAATGTGAAAAAAGATTTTTTGAAATTGTTGCAAAATTTATTAATAATAAAAAACCTGAAA
 AATCATATGTGCA TCAGTATTCACAGCCTTTGCCGTGAAGCTCTAAATTGAGCTCAGGTACA
 TTCTGTTTTCTAAATTGAGCTCAGGTACATCTGTTTCCACTGATCATCTTGAGATGTTTC
 AGCAGCTTCATTGGAGTTCACCTGTGGTAAATTCAGTTAATTGGACATGATTTGAAAAGGCA
 TACACCTGTCTATATAAGGTCCCAGGGTTGACAGTGCATGTCAAAGCACAAACCAAGC**ATG**A
 AGTCAAAGGAATGTC TGTAAACCTCCGAGACAGGAATGTTTAAAGGCA CAAGGCTGGGGAA
 GGTTACAGAAACAT T-CTGCTGTTCTGAAAGTTCCAATGAGCAC-GTGGCCTCCATGATCTG
 TA+GTGGAAGATGTTT GGAACCA CAAGGACTCGTCTACAGCTGGCCGGCCATCTAGGCTGA
 GTGT TTGGGGGAGAAGGTCCTTAGTCAGGGAGGTGATCAATAACCCGATGGTCACTCTGCT
 GAGCTCAGCGTTCTTC TGTGGAGAGAGGAGAACCTTACAGAAAGGACAACATTGTGCAGCA

 ATCCACCAATCAGGCCAGTATGGCAGAGTAGCCAGACGGAAACCACTCCGCACCTGGAATTT
 ++GCCTAAAGACATATGAAACACTCTCAAACC+TAGGAAACTAACTCTCTGGTCTGATGAG
 ACTAATATTGAACTCTTTGAGTGAATGCCAGGCATTACGTTTGGAGAAAACCAAGTCAGCGC
 TCATCACCAGGCTAATACCATCCCTACTGTTGGCAGCATCATGCTGTGGAGATGTTTTCAG
 CAGCAGGAAGTGGAAAGACTAGTCAGGATAGAGGGAAAGATGAATGCAGCAATGTACAGAGAC
 ATCCTGAA TAAAGACCTGCTGCAGAGTCTCTTGACCTCAGACTGGGGCGGACGTTTCATCTT
 TTAGCAGGACAA TGACCCAAGCACACTGCCAAAATATCAATGGAGTGGCTTCACAAACAAC T
 CGGTGAATGTCTTTGAGTGCCCGAGACAGAGCCCAGACCTAAATGGTAT TGAACCTCTCTGG

 AGAGATCTGAAAATGCGTGTACA CCGTCAC TTCCCATCCAACCTGATAGAGCTTGAGAGGTA

 CTGCAAAGAGGAATGGGCAAAAA T+++++++TCCCAAAGACAGGTGTGCCAAGCTTGTGGC
 ATCATATTCAAAAAGACTTGAGGCTGTAAATCGCTGCCAAAGGTGCATCAACAAAGTAT**TGA**G
 CAAAAGCTGTGAATAC TGATGTACATGTGATTTTTTCAGGTTTTTTATTTGTAATAAATTTGC
 AACAATTTCAAAAAA TCTTTTTTCACATTGTCATTATGGGGTATTGTGTGTAGAATGTTGA
GGAAATAAATGA+ATTTA++++ATCC++++ATTTT++++
 ttc ttttatt tta ttatt tcacctttcttggaaaggacagta
 ++++++GGAAA+++++AAGGCT+++++
 gagattgcagaca gtattgggagcagagagagggg g tggcaaaggacttcga
 ++++++GTGA+++++
 gccgggaatcgaacttgggtcacc gcaccatggtgctatatgtgcacttaaccactag
 ++++++CATAAAAATGTGAAAAAGTGAAGCG+++++
 gctattggcaccgacttggagaatttga-g tcaatc atcaatcaatccatcaatc
 ++++++CTATGAA TACTTCCGGATGCACTGTA
 tatctatctatccat ct ctg ctgctgtctgtctgtctgtctgtctgtctgtctg

ASgrn1-2 exon 4 (reverse complement)

3'