

▼ single base addition

rnr1-Y285A msh2Δ

n = 259

Δ single base deletion

1 ATGACAAATT CAAAAGAAGA CGCCGACATA GAGGAGAAGC ATATGTACAA TGAGCCGGTC ACA^CACCCTCT TTCACGACGT TGAAGCTTCA CAAACACACC

101 ACAGACGTGG GT^GCAATACCA TTGAAAGATG AGAAAAGTAA A^TGAATTGTAT CCATTGCGCT CTTTCCCGAC GAGAGTAAAT GGCGAGGATA CGTTCTCTAT

201 GGAGGATGGC ATAGGTGATG AAGATGAAGG AGAAGTACAG AACGCTGAAG TGAAGAGAGA G^{AG}CTTAAGCAA AGACATATTG T^TTATGATTGC CCTTGGTGGT^{TT}

301 ACTATTGGTA CAGGTCTTTT^{TTTTTTT AAAA} CATTGGTTTA TCCACACCTC TGACCAACGC C^TGGCCAGTG GGCGCTCTTA TATCATATTT ATTTATGGGT^A TCTTTGGCAT

401 ATTCTGTCAC GCAGTCCTTG GGTGAAATGG CTACATTCAT CC^ATGTTACA TCCTCTTTCA CAG^TTTTTCTC ACAAAGATTC CTTTCTCCAG CATT^ATTGGTGC

501 GGCCAATGGT TACATGTATT^{AAAA} GGT^{AAAA}TTTCTTG GGCAATCACT^A TTTGCCCTGG^T AACTTAGTGT AGTTGGCCAA GTCATTCAAT TTTGGACGTA^A CAAAGTTCCA

601 CTGGCGGCAT GGATTAGTAT^{AA} TTTTTGGGTA ATTATCACAA TAATGAAC^ATT GTTCCCTGTC AAATATTACG^A GTGAATTCGA^T GTTCTGGGTC^Δ GCTTCCATCA

701 AAGTTTTAGC CATTATCGGG TTTCTAATAT A^ΔCTGTTTTTG TATGGTTTGT GGTGCTGGGG^Δ TTACCGGCC AGTTGGATT^CC CGTTATTGGA^{CA} GAAACCCAGG^Δ

801 TGCCTGGGGT CCAGGTATAA TATCTAAGGA T^ΔAAAAACGAA GGGAGGTTCT TAGGTTGGGT^Δ TTCCTCTTTG ATTAACGCTG CCTTCACATT^A TCAAGGTACT

901 GAACTAGTTG T^TGATCACTGC^A TGGTGAAGCT G^ΔCAACCCTCA G^ΔAAAATCCGT TCCAAGAGCC^{AA} ATC^ΔAAAAAAG^Δ TTGT^ΔTTTCCG^A TATCTTAACC TTCTACATTG

1001 GCTCTCTATT ATT^TCATTGGA CTTTTAGTTC CATAACAATGA CCCTAAACTA ACACAATCTA CTTCCCTACGT TTCTACTTCT CCCTTTATTA TTGCTATTG^TA

1101 GAACTCTGGT ACAAAGGTTT^Δ TGCCACATAT CTTCAACGCT GTTATCTTAA CAACCATTAT TTCTGCCGCA AATTCAAATA TTTACGTTGG TTCCCCTATT^A

1201 TTATTTGGTC C^CTATCAAAGAA CAAGTTGGCT CCTAAATTC TGTC AAGGAC CACCAAAGGT GGTGTTCCAT ACATTGCAGT^{TTT} TTTTCGTTACT^T GCTGCATTG^Δ

1301 GCGCTTTGGC TT^GACATGGAG^T ACATCTACTG GTGGTGACAA AGTTTTTCGAA TGGCTATTAA ATATCACTGG TGTTGCAGGC^{TTT} TTTTTCGCAT^{TT} GGT^{TT}TATTTAT^{TTT}

1401 CTCAATCTCG CACATCAGAT TTATGCAAGC TTTGAAATAC^{AAA} CGTGGCATCT CTCGTGACGA GTTACCATTT AAAGCTAAAT TAATG^ΔCCCGG CTTGGCTTAT

1501 TATGCGGCCA CATT^ATATGAC GATCATTATC ATTATTCAAG G^ΔTTTCACGGC TTTTGCACCA^Δ AAATTCAATG GTGTTAGCTT TGCTGCCGCC TATATCTCTA

1601 TTTTCTCTGTT CTTAGCTGTT^Δ TGGATCTTAT TTCAATGCAT ATT^ACAGATGC AGATTTATTT GGAAGATTGG AGATGTGCAC ATCGATTCCG ATAGAAGAGA

1701 CATTGAGGCA ATTGTATGGG AAGATCATGA ACCAAAGACT TTTTGGGACA AATTTTGGAA TGTTGTAGCA TAG

Δ47 bp