

Parent seq GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_III_189;66;2 GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_IIO_14;1784; GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_IOI_2;11877; GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_IOO_6;4180;2 GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_OII_4;5354;2 GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_OIO_1;14848; GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU
P7_OO_315;37;29 GAUUCAAACCCGGUCCCCUCAGAGGUGACUCUGAGUGAAAGGUUCGUGCUUAGCACACU

InsA288 ΔU290

Parent seq GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_III_189;66;2 GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_IIO_14;1784; GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_IOI_2;11877; GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_IOO_6;4180;2 GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_OII_4;5354;2 GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_OIO_1;14848; GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG
P7_OO_315;37;29 GACGAGUUCUGAAAUGGAACGAAACCUUUCUAACCCAUUAGUUUCGUCGCAUCCAGCG

C307U

Parent seq ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_III_189;66;2 ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_IIO_14;1784; ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_IOI_2;11877; ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_IOO_6;4180;2 ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_OII_4;5354;2 ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_OIO_1;14848; ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC
P7_OO_315;37;29 ACUCGUCAGUGGGCUAAGCCCAGACUUAUGAGAGAGUGGUUACCUCUCAGCCCCUCCACC

G31A

Parent seq UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_III_189;66;2 UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_IIO_14;1784; UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_IOI_2;11877; UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_IOO_6;4180;2 UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_OII_4;5354;2 UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_OIO_1;14848; UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG
P7_OO_315;37;29 UUGGGGUGCCCUAUUCGGAGCACUGCAGUUUCGGAUAGAAAGGCUAAGCACUUCGCAAUG

ΔC117 C118U C138U

Parent seq AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_III_189;66;2 AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_IIO_14;1784; AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_IOI_2;11877; AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_IOO_6;4180;2 AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_OII_4;5354;2 AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_OIO_1;14848; AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU
P7_OO_315;37;29 AAGUAAGGUGGGACUUUCCCUAGGGUUUGAGCGGUCGAACCCAGGGGGAGUGUGAU

C148A G184A G201A