



Comments for pMT-3xHA

7458 nucleotides

argB: bases 671-2424

alcA (p): bases 2463-3185

attR1: bases 3258-3382

ccdB-box: bases 3632-4938

attR2: bases 4979-5103

3xHA: bases 5162-5251

bla: bases 6473-7330

ctgacgcgccctgtagcggcgcattaagcgcggcgggtgtgggtgttacgcgcagcgtgaccgtacacttgccagcgccttagc
cccgtctcttctgcttcttcccttcttctcgcaccgttcgccggcttccccgtaagctcfaaatcgggggctccctttagggttccgat
ttagtctttacggcacctcgcaccccaaaaaacttgattaggggtgatgggtcacgtagtgggccatcgcctgatagacgggtttcgc
tttgacgttggagtcacgttcttaatagtggactctgttccaaactggaacaacactcaacctatctcggctattcttttgattataagg
gattttgccgatttcggcctattggttaaaaaatgagctgatttaacaaaaatlaacgcgaatttaacaaaatattaacgcttacaattcca
ttcgccattcaggctgcgcaactgttgggaagggcgatcgggtgcgggcctcttcgctattacgccagctggcgaaggggggatgtgct
gcaaggcgattaagttggtaacgccagggtttccagtcacgacggtgtaaacgacggccagtgagcgcgtaatacgaactcac
tatagggcgaaatggagctccaccgcggtggcggccgctcagaagaatgtgctggatagaggtaagatggaatgaggagagt
cgagggtgggggtgtgttaggcctggatctacctggctagggcactccgattcgtgacatgtgaaagtcaccgggtgcgatttcc
ccattccaactctgagtaataaaggaagcagagaacatgtcaattagttattgatatactagaaagaattggtcaggataattgg
gaaaatgcttactaaccaggttttacgtgacggagtaataatatttagggacggaaatgatctacaccgtcaactcatcagttgataa
cgccagcctctatataatttaaatggaagcctgggtatatttattcaattttcccttattgacaacgaaacctccaaggcggaaatcgagc
ccataaccgggtctcagcctcagggaagacaagtaccgggtgctgtagaaaacctcgtcgtgacctcctcagggtgctcggggaga
cagtgcataaactccagccctccttagctcctcctcgttggcgagttcagcagtgatttggaaacctcaaacctcctcagcctctgag
ccttctctctcttggccatagagaccaggtgctgtgaccagaatcggcgtccttgaccgcttctcgggaatattggttgcaga
agcttctctggttcgagacacctctccagcagacttgatgagctccagcatgtgaggaggatttctacccttgggagtagcgaca
gcaatgtcgaacccatttttagcagcaatggccatcgaacaggacggttggcgtcaccaccaagcagcttcaatcctcca
acctagactgaaagttgggtgcgccttgggggtgaaatgctcatagatggcttggaaatcgccacggcttggagaggggtgaaaga
gtcacacaaagcattgatgactggaaccgaagagtgttcgccagatctgcacctctgcatgttaccgacacgggctacaatcgag
gataccatggacgaaatgacaacggaggtgctgtatagggactcgttgcacctagttggatcatccttggccaagaacatcggatg
acctccatctgcacaacggccccctctgtagataacctgtcctcgtcctcgttggatcgaagatcagggcacagtttccaaggagt
atccctgcaagtttggggcattgacccgacttgatagcccgttgtgtgaggaggcattcgaacaagggttgcgaactcggagggc
gagaggtccgcaatggagaggaagtggcggggagcaaaagggtgagcgggagcagatggttgcgaggagtaggatcgacgggt
gtgtcgaagctctggctcttgagtacggagcgaagggtgacattggaagtgcagaatatagatgttaaagaactaaaagacttgg
ggcggaaagaaatgtggacagaacgagggcatccacaaataactgagaatgattcgtgaatgactcataagtcgccagcaggag
ctccgatcattggtaaagaacagagttagcgccttccgttcgctgacacggatcaccgccattgcatcaggcccttgaactctgctg
ataccttgaactgctcacagctctcactcctcctcgttcatcaatatttgcgaattattgcatgcaagcttccgcccgtctca
gaactagtggatccccgggtcgcaggaatcgccttgagagagtttgaataggcgttccgttctgcttagggattttgggaacaatc
aatgttcaatgtacatttaaccagattttataaacgtcatccttgcctccttcttatttggcaataccaaaaatcttactccagtggtc
ggtaatcgcagagttaaatctgggctcgggtggcagatctcgatgctccataaccgttcagatgttgattggaactgggtgggtagac
agctcgaagaccgagtgaacgtatacctaagacactttgacacggccggaacactgtaagtccctcgtatttctccgctgtgtggagc
taccatccaataacccccagctgaaaagctgattgtgatagttccactgtccgctccgcatccgcagctcgggatagttccga
cctaggattggatgcatcgggaaccgcagagggcggggcggaaatgacacaccactcctcctccagcaccgttcaagaggtacg
cgtatagagccgtatagagcagagacggagcactttctgtactgtccgcacgggatgtccgcacggagagccacaacgagcggg
gccccgtactgtctcctaccagcagatcgcacccccatagctgaacatctataaaagacccccaaagttctcagctcacaaca
tcatcaaccaacaatcaacaggatcctaagggcgaatcagatcaagcttgcataaccgtcagctcagatagggagaccacaa
cggttccctctagatcacaagttgtacaaaaagctgaacgagaacgtaaaatgatataaatacaatataaattagatttgcata
aaaaacagactacataactgtaaaacacaacatacagtcactatggcggccgtaagtggcagcatcaccgacgactttgcg
ccgaataaacctgtgacggaagatcacttcgcaataaataaactcctggtgtccctgtgataccgggaagccctgggccaacttt
ggcgaatagacgttgcggcacgtaagaggttccaacttccacataatgaaataagatcactaccggcgtatttttgagtatc
gagatttcaggagctaaggaagctaaaaatggagaaaaaatcactggatataaccaggttgcataatcccaatggcatgtaaaagac
atttgaggcatttcagtcagttgctcaatgtacctataaccagaccgttcagctggatattacggccttttaagaccgtaaaagaaata
agcacaagtttatccggcttattcacattcttccccgctgatgaatgctcatccggaattccgtatggcaatgaaagacggtgagctg
gtgatagggatagttacccttgttacaccgtttccatgagcaaacgtaaacgtttcctcgtctggagtgaataccacgacgattc
cggcagttctacacataatcgaagatgtggcgtgttacgggtgaaaacctggcctatttccctaaagggttattgagaatatgttttcg
tctcagccaatccctgggtgagttaccagttttgatlaaacgtggccaatatggacaacttctcggccccgtttaccatgggcaaat
attatacgaaggcgacaaggtgctgatccgctggcgattcaggttcatcatgccgtctgtgatggcttccatgtcggcagaatgctta
atgaattacaacagctactgcgatgagtgagggcggggcgtaaacgcgtggatccggcttactaaaagccagataacagatgcgta
tttgcgcgctgattttgcggtataagaatataactgatagataaccgaaatgtcaaaaagagggtgtgctatgaagcagcgtattaca
gtgacagttgacagcagcagctatcagttgctcaaggcatatagtgtaaatctccggctggtgtaagcacaacctgcagaatgaag
cccgtcgtctcgtgccgaacgctggaaagcggaaaatcaggaagggtggctgaggtcggccggttattgaaatgaacggctctt

tgctgacgagaacagggactggtgaaatgcagtttaaggtttacacctataaaagagagagccgttatcgtctgtttgtggatgtacaga
gtgatattattgacacgcccgggagcagggatggtgatccccctggccagtgcacgtctgctgtcagataaagtctcccgtgaactttacc
cgggtggtgcatatcggggatgaaagctggcgcatgatgaccaccgatatggccagtgtccggctcctccgttatcggggaagaagtgg
ctgatctcagccaccgcgaaaatgacatcaaaaacgccattaacctgatgttctggggaatataaatgtcaggtccttatacacagcc
agtctgcaggtcgaccatagtgactggatattgtgttttacagtattatgtagtctgtttttatgcaaaaatctaattatattgatattat
atcattttacgtttctcgttcagcttcttgtacaaaagtggatgatccggctgctaacaagcccgaaaggaagctgctcgagggggggg
cccggtacctaccatacagatgttctgactatgcgggctatccctatgacgtcccggactatgcaggatcctatccatagacgttccag
attacgtggtaccagcttttctcccttagtgagggtaattgcgcgcttggcgtaaatcatggtcatagctgttctctgtgaaattgta
tccgctcacaattccacacaacatacagaccggaagcataaaagttaaagcctgggggtgcctaagtgtgagctaaactacattaattg
cgttgcgctcactgcccgttccagtcgggaaacctgtcgtgccagctgcattaatgaatcggccaacgcgcggggagaggcggttt
gctattggggcgtcttccgttctcgtcactgactcgtcgcctcggctgttcggctgcggcgagcgggtacagctcactcaaagg
cgtaatacggttatccacagaatcaggggataacgcaggaaagaacatgtgagcaaaaaggccagcaaaaaggccaggaaccgtaa
aaaggccgcgttgctggcgttttccataggctccgccccctgacgagcatcaaaaaatcagctcaagtcagaggtggcgaaac
ccgacaggactataaagataaccaggcgttccccctggaagctcctcgtgcctctcctgttccgacctgccgttaccggatactg
tccgcttctccctcgggaagcgtggcgcttctcatagctcacgctgtaggtatctcagttcgggtgtaggtcgttcccaagctggg
ctgtgtcacgaacccccgttcagcccaccgctgcgcctatccggtaactatcgttctgagccaacccgtaagacacgacttacc
gccactggcagcagccactggtaacaggattagcagagcaggatgtaggcgggtctacagagttcttgaagtgggtggcctaactac
ggctacactagaaggacagatttggatctgcctcgtcgaagccagttacctcggaaaaagagttggtagctcttgatccggcaaa
caaaccaccgctggtagcgggtggtttttgttgcaagcagcagattaccgcgcagaaaaaaggatctcaagaagatcctttgatctttc
tacggggtctgacgctcagtggaacgaaaactcacgttaagggatttggctcatgagattatcaaaaaggatctcactagatcctttaa
attaaaaatgaagtttaaatcaatctaaagtatatatgagtaacttggctgacagttaccaatgcttaatcagtgaggcacctatctcagc
gatctgtctatttcgttcatccatagttgctgactccccgtcgtgtagataactacgatacgggagggccttaccatctggccccagtgctg
caatgataccgcgagaccacgctcaccggctccagattatcagcaataaaccagccagccggaaggccgagcgcagaagtgg
cctgcaactttatccgctccatccagcttattaattgttgcgggaagctagagtaagtagtccagtaaatagtttgcgcaacgttgtt
gccattgtacaggcatcgtggtgtcacgctcgtcgttggatggcttcaatcagctccggttccaacgatcaaggcgagttacatgat
ccccatgttgcataaaaagcggtagctcctcggctcctccgatcgttgcagaagtaagttggccgcagtggtatcactcatggttatg
gcagcactgcataattcttactgtcatgccatccgtaagatgctttctgtgactggtgagttactcaaccaagtcattctgagaatagtg
atgcggcgaccgagtgctcttcccggcgtaatacgggataataccgcgccacatagcagaactttaaagtgtcatcattggaaa
acgttcttccggggcgaaaaactcgaaggatctaccgctgtgagatccagttcagatgaaccactcgtgcaccaactgatcttcagca
tctttacttccaccagcgttctgggtgagcaaaaacaggaaggcaaaaatgccgcaaaaagggaataagggcgacacggaaatgtt
gaatactcactcttcttttcaatattattgaagcatttatcagggtattgtctcatgagcggatacatatttgaatgtatttagaaaaataa
acaaaataggggttccgcgcacattccccgaaaagtgccac