

Nucleotide sequence of MnNPV polyhedrin gene.

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We have constructed a baculovirus expression vector based on Malacosoma neustria nuclear polyhedrosis virus (MnNPV). The vector showed itself as an effective tool for the expression of foreign gene(1). Presented here is the complete nucleotide sequence of MnNPV polyhedrin gene which is used for the insertion of genes to be expressed.

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1  tcgccgccaccgggtgttcaaaagacgacaaaaatagtgtgcgtagtgaacgtttaattttt
61  aaaacactgtacattttcaagtcacaaatgagcaaggcgcgcgggatcgtttataagt
121 catcgccgctcgcaacgacacacatcgtaacaatgtaaatattaattacgctcacatac
181 acagaataagtatttttattctttcgtaaaaaaattagaaaaataaaatataaaATGTAT
241 ACACGTTACAGTTATAATCCACACTGGGCCGCACCTATGTTTATGATAATAAATATTAC
301 AAAAACTCGGACATGTGATCAAAAACGCCAAGCGCAAGAAGATGCCGCCGAGCACGAG
361 CTAGAAGAGCGCAACCTGGATCCCCTCGACAAGTACITTAGTGGCCGAAGATCCTTTCTTG
421 GGACCTGGCAAAAACCAAAAACCTCACATTGTTCAAGGAAATTCGTAATGTCAAACCGGAC
481 ACGATGAAACTCATCGTAAACTGGAGCGGCAAGAGTITTCGCGTAAACTGGACCCGT
541 TTCATGGAAGACAGCTTCCCCATTGTCAACGACCAGGAAATAATGGACGTGTTTCTAGTG
601 GTCAACATGGCCCCAACGAAACCGAACCGTTGTTGCGTTTTGGCTCAACACGCGTACGG
661 TGCGACTCTGACTATGTCCCGCACGAGGTGATCAGGATTGTGAAACCTTCGTACGTAGGT
721 AGCAACAACGAGTACCGCATCAGTTTGGGCAACGATACAACGGATGCCAGTTATGAAC
781 TTGCATTCAGAGTACACCAATTCCTTTGAAGATTTTCATCAACCGAGTGATCTGGGAAAAC
841 TTCTACAAACCTCTCGTGATACATTGGTACCGATTCTGCCGAAGAAGAGGAAATTCCTTA
901 GAGGTGTCTTTGGTGTTCAAAATCAAAGGTTGCTCCCGACGCACCTCTATACACTGGA
961 CCCGCATACTAAGcttcactttctctatatttaacagagattcatgacgttttccaacaga
1021 cgaatatagtttttattagttggacgcaatcttatcgcttctgtaaagcatctttgtgca
1081 acgctcaaatggtccgctcat
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The coding sequence shares 73% homology on the nucleotide level and 88% homology on the amino acid level with the corresponding region of AcMNPV (2). The 5'-flanking sequence of the gene is less conservative (62% homology with AcMNPV), though it contains stretches of highly conserved sequences (underlined) common to all hyperexpressed late genes of baculoviruses (3).

References

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