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Conserved baculoviral ORFs 10 and 14 from *Bombyx mori* multiple nucleopolyhedrovirus

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ABSTRACT. ORFs 10 and 14 from *Bombyx mori* multiple nucleopolyhedrovirus (BmMNPV) were amplified, cloned and sequenced. Nucleotide analysis of these genes and those of other baculoviruses showed that these genes are highly conserved. The p10 protein from BmMNPV ORF10 has 70 amino acid residues similar to that of the four other known BmNPV strains. The BmMNPV ORF14 alignment showed a higher identity with the nucleopolyhedrovirus ORF14 from the baculovirus BmNPV and from *Autographa californica* multiple nucleopolyhedrovirus. The BmMNPV ORF14 protein has a putative transmembrane domain in the C-terminal region, which is similar to that of other baculoviruses. A phylogenetic analysis showed that BmMNPV ORF14 protein has higher similarity with BmNPV ORF14 and ORF23 of *A. californica* multicapsid nucleopolyhedrovirus (Ac23). We conclude that proteins produced by ORFs 10 and 14 from BmNPV and BmMNPV are highly conserved in NPVs and MNPVs. The high degree of conservation among members of these genera indicates the importance of these proteins, which could mean an important function that is active throughout the infection cycle.

Key words: Baculovirus; BmMNPV; ORF10; BmMNP; ORF14 *Bombyx mori* multiple nucleopolyhedrovirus subgroup

