

Bioinformatic analysis of *Insect Iridescent Virus (IIV6)* proposes novel open reading frames and supports previously described putative protein products

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Insect iridescent virus 6 (IIV6), also known as the *Chilo iridescent virus (CIV)*, is a linear, double-stranded DNA virus that affects insects and other arthropods. IIV6 has been shown to cause mortality events in arthropods, including species involved in agriculture preservation. The current study attempts to expand our understanding of IIV6 by reanalyzing the first portion of the genome for novel, as well as, established open reading frames, in addition to their putative protein products. The IIV6 genome contains approximately 212,000 base pairs and, from this fully sequenced genome, 54 putative proteins have been identified in previous analyses. We used the software program Geneious R9® to perform genomic sequence analyses of IIV6 to search for open reading frames. These open reading frames were then individually converted into translated amino acid product and sequences were then evaluated for putative protein products through the National Center for Biotechnology Information (NCBI). Our findings suggest additional open reading frames not previously identified in the database. In addition, low statistical support was seen for proteins found with viruses not within the *Iridoviridae* family. Further investigation is needed to explore possible protein interactions with the putative protein products of the newly identified open reading frames.

Keywords: Insect Iridescent Virus, IIV6, open reading frames, bioinformatics, putative protein products