

LongDbName: Acıbadem University Open Access**ShortDbName:** ir00686a**AN:** auoa.11443.1528**Title:** Temporal proteomic analysis and label-free quantification of viral proteins of an invertebrate iridovirus**PublicationDate:** 20150101**Contributors:** Ince, Ikbal Agah; Boeren, Sjef; van Oers, Monique M.; Vlak, Just M.;**DocTypes:** Article;**PubTypes:****CoverDate:** 2015**PeerReviewed:****Source:****IsiType:** GEN**DOIDS:** ;**ISBNS:** ;**ISSNS:** ;**PublisherLocations:** ;**RecordType:** ARTICLES**BookEdition:****Publisher:** MICROBIOLOGY SOC**PageStart:****PageEnd:****PageCount:****Volume:****Issue:**

Abstract: Invertebrate iridescent virus 6 (IIV-6) is a nucleocytoplasmic virus with a similar to 212 kb linear dsDNA genome that encodes 215 putative ORFs. The IIV-6 virion-associated proteins consist of at least 54 virally encoded proteins. One of our previous findings showed that most of these proteins are encoded by genes from the early transcriptional class. This indicated that these structural proteins may not only function in the formation of the virion, but also in the initial stage of viral infection. In the current study, we followed the protein expression profile of IIV-6 over time in *Drosophila* S2 cells by label-free quantification using a proteomic approach. A total of 95 virally encoded proteins were detected in infected cells, of which 37 were virion proteins. The expressed IIV-6 virion proteins could be categorized into three main clusters based on their expression profiles: proteins with stably low expression levels during infection, proteins with exponentially increasing expression levels during infection and proteins that were initially highly abundant, but showed slightly reduced levels after 48 h post-infection. We thus provided novel information on the kinetics of virion and infected cell-specific protein levels that assists in our understanding of gene regulation in this lesser-known DNA virus model.

Language:**Subjects:** ;**plink:** <https://research.ebsco.com/linkprocessor/plink?id=946794e6-9ad4-3593-8d07-ead297efcb07>