Abstract

The baculoviruses are a group of enveloped DNA viruses that infect the larval stage of arthropods, mainly insects. They are widely used in biotechnology and well known for their utility as biological pesticides and gene expression vectors for the production of proteins in insect cells and larvae. However, they are also able to enter in mammalian cells and deliver-genes for expression under the control of mammalian cell-active promoters. Recombination or pseudotyping can result in formation of baculoviruses that provide a higher transduction frequency or are able to recognize specific mammalian cells. This bachelor thesis describes the phenomenon of viral pseudotyping and summarizes published information about the use of pseudotyped baculoviruses for gene therapy and vaccination.