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**Microarray analysis of host gene expression in the silkworm cells infected with
Bombyx mori nucleopolyhedrovirus**

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Nucleopolyhedrovirus (NPV) is a member of the family baculoviridae, enveloped DNA viruses, possessing a large circular double-stranded DNA (80-180 kb) genome. Although some lepidopteran host genes such as heat shock protein 70 cognate have been shown to be up-regulated in the early stage of NPV infection, the genome-wide host gene expression profile in response to NPV infection has not yet been analyzed. In this study, we analyzed the global expression profile of host genes in *Bombyx mori* (Bm) NPV infected silkworm cells by oligonucleotide-based DNA microarray and quantitative reverse transcriptase-polymerase chain reaction analysis. Our analysis showed that 35 were significantly up-regulated and 17 genes were significantly down-regulated. This is the first report of changes in the expression of these genes in response to NPV infection. We further quantified the levels of mRNA expression by quantitative reverse transcriptase-polymerase chain reaction and confirmed that the expression of 13 (such as *BmEts* and *BmToll10-3*) genes significantly increased and 7 genes (such as *Hsp20-1*) significantly decreased after BmNPV infection. However, the expression levels of most genes were not dramatically changed except *BmEts* expression increased approximately 8.0 fold 12 h after BmNPV infection.

Keywords: nucleopolyhedrovirus, *Bombyx mori*, microarray, Ets family protein