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Molecular Cloning and Gene Expression of *Yippee*, Hemolin-interacting protein in *Bombyx mori*

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Hemolin is a member of the immunoglobulin superfamily that has been identified only several lepidopteran moths including *B. mori*. An intracellular protein, *Yippee*, was known hemolin-interacting proteins from *D. melanogaster*. Here, we describe the cDNA encoding *yippee* and partial characterization connection with hemolin in *Bombyx mori*. Sequence analysis of a 1319 bp full-length cDNA revealed it to contain an open reading frame of 122 amino acid residues consisted of 366 bp. During development of *B. mori yippee* mRNAs were not detected until the spinning stage of the larvae. But, this gene expressed throughout the pre-pupa, pupa and moth and strong expression in mid-gut at pre-pupa was interested. These expression profiles coincided with those of hemolin. *Yippee* is expressed in the egg during germ band formation (24h after oviposition), germ layer differentiation (2 days after oviposition) and appendages formation (3 days after oviposition) and gradually decreased in late embryogenesis. Interestingly, in expression of the bacteria infected larva was dramatically strong. *Yippee* mRNA expression was induced by bacterial-infected and this induction was notably increased comparison with normal development. This result suggested that the function of *yippee* as a hemolin-interacting protein in *B. mori*.