

Proteomic Analysis of Differentially Expressed Proteins Involved in BmNPV Resistance in the Fat Body of Silkworm, *Bombyx mori*

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To investigate the mechanism of nucleopolyhedrovirus resistance of silkworm, we bred a near-isogenic silkworm line, designated BC₉, from the parental resistant strain NB and the susceptible strain 306, that is resistant to infection by nucleopolyhedrovirus. Proteomic techniques were employed to search for candidate genes playing a role in the antiviral response, based on differential protein expression profiles in the fat bodies of these strains. Four proteins were identified, two of which are possibly related to energy metabolism, the third one may have a function similar to integrase, and the fourth one is completely novel. Thus, our strategy of the combined use of near-isogenic silkworm line and proteomic techniques is effective for discovering new genes in the antiviral response of insects.

Key words: *Bombyx mori*, Nucleopolyhedrovirus, Fat Body