

Cloning of Lectin-like Gene Derived from Polydnavirus (PDV) of *Cotesia plutellae*

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Cotesia plutellae is an endoparasitic wasp species in Braconidae. The parasitization by the wasp resulted in developmental arrest and immunodepression of the host insect, *Plutella xylostella*. This research analyzed the non-self recognition of the parasitized larval using bacterial binding assay and cloned the lectin-like gene presumably regarded as the recognition inhibitory factor derived from the endosymbiotic polydnavirus (PDV) of the wasp. The hemocytes of the parasitized larval had significantly lower capacity to bind the stained *Escherichia coli* than did the non-parasitized. The plasma separated from the parasitized hemolymph prevented the non-parasitized hemocytes from binding the bacteria. Using the conserved regions of the viral lectin genes found in *Cotesia* spp., the corresponding partial gene was cloned. Following 5'-RACE and 3'-RACE, the cDNA of the lectin-like gene was cloned and fully sequenced (711bp). The sequence alignment showed that the lectin-like gene had high homologies ($\approx 80\%$ identity) with those of *Cotesia* spp. PDV. A Southern result of the gene indicates that the gene is encoded in the PDV genome. The lectin-like gene was expressed at the early parasitization period by a Northern analysis. These results suggest that the lectin-like gene may be involved in interrupting the hemocyte recognition to non-self.