

3-3-12. Immunological Properties and Stage-Dependent Synthesis of the Pupal Major Haemolymph Protein of the Wild Silkmoth, *Antheraea pernyi*

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Immunological properties and the stage-dependent synthesis of the pupal major haemolymph protein (AMHP) of the wild silkmoth, *Antheraea pernyi* were investigated. Anti-AMHP serum was prepared by immunizing the mouse with AMHP purified from the pupal haemolymph of the *A. pernyi*. In Western blot analysis following native- and SDS-PAGE, the antibody against AMHP cross-reacted with the AMHP in the haemolymph of both the sexes excluding the male adult during all the developmental stages from egg to adult. Also, the antibody cross-reacted with the crude protein extract of the haemolymph, integument, fat body, midgut, excluding silk gland, in the 5th instar larvae. By tracer experiments using [¹⁴C]-leucine, the synthetic activity was detected strongly in the haemolymph of the early larvae, weakly in the haemolymph of the middle and late larvae in the 5th instar, but absolutely not in the pupal stage. These results revealed that the AMHP is synthesized strongly in the 5th larval stage and being used for subsequent transformation event from pupa to adult of the *A. pernyi*, and is independent upon the protein of the silk glands.