

# **Analysis of 1D and 2D Electrophoresis of Pupal Haemolymph and Fat Body Proteins between the Sexes in the Silkworm, *Bombyx mori***

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Pupal haemolymph and fat body proteins in both the sexes of the day 5 pupae of the silkworm, *Bombyx mori* were analysed by 1D (native- or SDS-PAGE) and two dimensional electrophoresis. In the native-PAGE, the total number of the major electrophoretic protein bands in the female pupal haemolymph was 11, but was 10 in male pupal haemolymph. Also, 7 electrophoretic protein bands were detected in the fat body extracts of each sex, so no difference in the band number between them was observed. However, the electrophoretic band patterns and band number between the corresponding tissues, e. g. haemolymph and fat body were very differently observed. In the SDS-PAGE, the 3 bands with the molecular weigh of about over 200 kDa were detected only in the female haemolymph, but the electrophoretic profile between female and male fat body was almost identical. In the 2D electrophoresis, about 10 major peptide spots in the female or male pupal haemolymph were mainly detected around 40~50 kDa zone, but about 5 major peptide spots in the female or male fat body were detected around 80~100 kDa zone. Additional one or two polypeptide spots were detected in females of both haemolymph and fat body extracts. These results revealed that major polypeptides present in haemolymph and fat body of the dat 5 pupae are very different in molecular weights.