

Hemolymph Origin Silk Gland Protein (HOSGP) of Wax Moth, *Galleria mellonella*

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Hemolymph origin silk gland protein (HOSGP) has been purified from the last larval hemolymph of wax moth, *Galleria mellonella*.

HOSGP was identified from the silk gland and characterized using antibodies against larval hemolymph protein and silk gland.

Hemolymph and silk gland extracts were electrophoresed and western-blotted with each developmental stage. HOSGPs were present in the silk gland.

To confirm the presence of HOSGP in other tissues, western-blotting was performed with extracts of malpighian tubule, midgut and fat body. A high concentration of HOSGP was also detected in the fat body.

HOSGP was present in large amounts in the silk gland of the last instar larval and wandering stages when silk is actively produced.

HOSGP has been purified by KBr density gradient ultracentrifugation, anion-exchange chromatography (DEAE-cellulose column) and resource Q using fast protein liquid chromatography (FPLC) and characterized.

The purified HOSGP was shown to have molecular of approximately 80kDa. Other characteristics such as amino acid composition, N-terminal sequence, isoelectric point and spectroscopic property were investigated.