

Antifungal Peptide from the Larval Hemolymph of the Immunized Great Wax Moth, *Galleria mellonella*

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Here we report an antifungal peptide isolated from *G. mellonella* larvae. The peptide was purified by a three-step procedure consisting of acid extraction, gel permeation chromatography and reversed-phase HPLC. First the N-terminal amino acid sequence of the purified peptide was determined by automated Edman degradation. And then the full sequence of the peptide was disclosed by cDNA cloning performed via reverse transcriptase PCR with degenerated primer prepared based on N-terminal sequence. The peptide possesses a molecular mass of 4720.25 Da and consists of 43 amino acid residues (DTLIGSCVWGATNYTSDCNAECKRRRGYKGGHCGSFLNVNCWCE). Our database search revealed that the sequence is highly homologous to that of the antifungal peptide, heliomicin, first reported in Lepidoptera. The antifungal activities of the peptide were assessed against a variety of fungi through a microbroth dilution assay.