2-15. Purification and cDNA Cloning of a Cecropin-like Antibacterial Peptide from the Hemolymph of Wax Moth, *Galleria mellonella*

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We have purified and characterized cecropin A-like antibacterial peptide from the hemolymph of immunized *Galleria mellonella* larvae. Acid extraction, gel filtration, preparative acid urea PAGE, and reversed-phase HPLC were used for purification of peptide. The molecular mass of the purified peptide was estimated to be 4160.68 Da by MALDI-TOF mass spectrometry. The complete primary sequence was confirmed by cDNA cloning, which was performed via a combination of RT-PCR (reverse transcription polymerase chain reaction) and 5-RACE PCR. the degenerate primer for RT-PCR was designed according to the N-terminal amino acid sequence of peptide. The cloned cDNA of peptide contains 327 bp. The nucleotide sequencing of cDNA revealed that it encodes a prepropeptide consisting of 65 amino acids. In the amino acid sequence homology search, it was confirmed that the mature part corresponding to C-terminal 39 amino acid residues had over 84% sequence homology to cecropin A from *Hyalophora cecropia*. When the molecular mass of the purified peptide was compared with the calculated mass of the mature part deduced by cDNA cloning, it was strongly suggested that the peptide was posttranslationally modified by the deletion of C-terminal Lys residue and the following amidation.