

### 3-4-5. Developmental Expression of *Bombyx mori* QM Homologue

Jin-Sung Lee, Jae-Sam Hwang<sup>1</sup>, Ki-Hwan Kim and  
Seok-Woo Kang<sup>1</sup>

CoreBio Research Institute of Bioscience & Biotechnology, CoreBio System  
Co. Ltd, Seoul, Korea,

<sup>1</sup>Dept. of Sericulture & Entomology, NIAST, RDA, Suwon, Korea

We have been isolated and sequenced a cDNA encoding QM homologue from *Bombyx mori* to understand structure and function of QM family. The 594 bp cDNA has an open reading frame of 217 amino acids and a predicted mol. wt. of 25 kDa. The *Bombyx mori* QM gene has more than 88% amino acid sequence identity to the QM protein from *Drosophila melanogaster* and 99% to that of *B. mandarian*. Developmental mRNA expression gradually increased from 1-2 days after egg laying to 2 days of final instar, while very low expressions were detected for either the pupae and the moth stages. The organs, posterior and middle division of silk gland, midgut, fat body and malpighian tubes, also show relatively high mRNA expression levels, respectively. The high degree of conservation and expression of the *Bombyx mori* QM homologous suggest that it has a specifically conserved amino acid sequence due to an important biological role which is associated with pupae development or its formation.