

***Bombyx mori* (Chosunjaelaeam, Korean native strain) cDNA
project : Expressed Sequence Tag Analyses during
Embryogenesis**

**Sun mee Hong¹, Tae Won Goo³, Hwang Jae Sam³, Nam Soon Kim²,
Seok Woo Kang³, and Si Kab Nho¹**

¹College of Agriculture and Life sciences, Kyungpook National University,
Daegu 1370, Korea, ²Genome Research Center, Korea Research Institute of
Bioscience and Biotechnology, Taejon 305-333, Korea and ³Department of
Sericulture and Entomology, NIAST, RDA, Suwan 441-100, Korea

A cDNA library was constructed from fertilized eggs, *Bombyx mori* (*kl20*, Chosunjaelaeam, Korean native strain) collected after oviposition (24-48hr) with mating. Korean strain, *kl20* was reported that distinguished from Korean strains by isozyme experiment and RAPD analyses. We thought that cloning and characterization of *kl20* genes indicate that each gene is expressed under discrete spatio-temporal pattern within their lineage. We used to a method for efficiently constructing high-content full-length cDNA libraries based on chemical introduction of biotin group of the cap structure of eukaryotic mRNA, followed by RNaseI treatment to select full-length cDNA. Expressed sequence tags (ESTs) of the 5'-end of more than 5000 clones were determined and the clones were categorized into independent clusters using the DNASTAR program. Nearly 1500 clusters of them were analyzed in detail of their sequences against a BLASTX search. The average length of sequences was 578nt and full-length cDNA was 1143 clusters. These genes were categorized into 12 groups according to their biological functions. The group was the genes involved in cellular organization (28.8%), transcription (10.8%), cell cycle and DNA processing (10.2%), regulation of interaction with cellular environment (1.2%), metabolism (8.5%), cellular communication/signal transduction (1.7%), cellular transport and transport mechanisms (5.9%), energy (2.2%), protein fate (6.5%), protein synthesis (5.7%), cell fate (0.009%) and unclassified genes (18.8%).