

Annotated Expressed Sequence Tags of brain in the *Bombyx mori*

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The *Bombyx mori* is an model for studies of neural, behavioral spinning and ecdysis. To obtain genetic information of brain on the *Bombyx mori*, we have constructed brain cDNA library(contained CNS) from the beginning pupation stage. Here, we report *Bm brain* ESTs profiles determined the 5' most end of 2976 clones. The brain cDNA library has been partially sequenced and functionally annotated searching the nucleotide and protein databases in the GenBank and other public sources using BLASTX. The average length of sequences was 376nt. We sequenced and analyzed 2976 ESTs from whole body of *Bombyx mori* brain and assembled the 2000 ESTs sequences into 945 contigs, 308 of which contained two or more ESTs sequences and 637 remained singletons. Overall, 572 contigs are found similar to existing sequences in GenBank and 373 are novel. Most of the best matches originated from insects. They are *Drosophila melanogaster*(39%) and *Anopheles gambiae*(15%). Also, these genes are categorized into 13 groups. Groups that expressed at high level are (1) Control of cellular organization 193(37.5%) (2) Protein synthesis 110(21.4%) (3) Protein rate(folding, modification, destination) 41(8%) (4) Transcription 40(7.8%) (5) Unclassified proteins 31(6%) (6) Cellular transport and transport mechanism 20(3.9%) (7) Methbolism 19(3.7%) (8) Cell cycle and DNA processing 17(3.3%) (9) Cell rescue, Defense and virulence 16(3.1%) (10) Energy 14(2.7%) (11) Regulation of , Interaction with cellular environment 6(1.2%) (12) Cellular communication Signal transduction mechanism 4(0.8%) (13) Classification not yet clear-cut 3(0.6%) (14) Subcellular localixation 1(0%).