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Molecular Characterization of a *Bombyx mori* LIM protein

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The LIM domain defines a zinc-binding motif found in a growing number of eukaryotic proteins that regulate cell growth and differentiation during development. Members of the cysteine-rich protein family of LIM proteins have been implicated in muscle differentiation in vertebrates. Here we report the identification and characterization of a cDNA encoding LIM protein from the *Bombyx mori*. In *Bombyx mori*, a LIM protein is consisted of 622 nucleotides and 94 amino acids. This LIM protein had a LIM motif containing glycine-rich domain, thus may belong to group 2 LIM protein. LIM protein was expressed at late embryogenesis and in midgut of 5th instar larvae in *Bombyx mori*. The LIM protein was seemed to be associated muscle formation of embryos at late embryonic development. LIM protein was homologous with Mlp60A and Mlp84B that are reported to associate with myogenesis in *Drosophila melanogaster*. This study was described the correlation between the expression of LIM protein and embryonic development during diapause in *Bombyx mori*.