

Histological Distribution of *BmEts* mRNA, a Diapause-specific mRNA, in Pre-diapause and Diapause Embryos of *Bombyx mori*

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BmETS protein encoded by the *BmEts* gene is a member of transcription factors with a DNA-binding motif called ETS domain. Generally, transcription factors with the ETS domain regulate cell division and differentiation. The *BmEts* mRNA is transcribed and accumulated in diapause eggs from 20 hours after oviposition (Suzuki *et al.*, 1999). It is, however, unknown where the mRNA is expressed in the egg. To elucidate the function of *BmEts* in the embryonic diapause, it is helpful to investigate the distribution of the mRNA in the egg. We observed the *BmEts* mRNA on the paraffin sections of the diapause eggs and non-diapause eggs of the p50 strain by *in situ* hybridization. As a result, the mRNA signals were found in all of the cells in diapause embryos 20 hours after oviposition. On the other hand, in non-diapause eggs, no signal was detected 20 hours after oviposition. Furthermore, 30 days after oviposition, the signal was still observed equally in all of the cells in diapause embryos. These results suggest that *BmEts* functions not only in diapause induction but also in maintenance of the cell cycle arrest at G2.