

# **Analysis for *Bombyx mori* Transcription Factor, ATFC That Binds to the UPRE of Molecular Chaperones**

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Cells respond to an accumulation of unfolded proteins in the endoplasmic reticulum (ER) by increasing transcription of genes encoding molecular chaperones and folding enzymes. The information is transmitted from the ER lumen to the nucleus by intracellular signaling pathway, called the unfolded protein response (UPR). In *S. cerevisiae*, such induction is mediated by the cis-acting unfolded response element (UPRE) which has been thought to be recognized by Hac1p transcription factor. We cloned the ATFC gene showing similarity with Hac1p, and then examined to determine whether ATFC gene product specifically binds to UPRE by electrophoretic mobility shift assays. The results, ATFC gene product displayed appreciable binding to <sup>32</sup>P-labelled UPRE. Therefore we concluded that ATFC represents a major component of the putative transcription factor responsible for the UPR leading to the induction of ER-localized stress proteins.