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Cloning and sequence analysis of a full-length cDNA encoding *Cyclophilin A* from *Bombyx mori*

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Cyclophilins (Cyps) are a family of proteins that bind the immunosuppressive agent cyclosporin A (CsA) with high-affinity and belong to one of the three superfamilies of peptidyl prolyl cis-*trans* isomerases (PPIase) which catalyse the cis-trans isomeriastion of peptide bonds N-terminal to proline residues in polypeptide chains. We report the characterization of a novel Cyclophilin A (bCyp A) isolated from *Bombyx mori*. To obtain bCyp A gene from *B. mori*, we have constructed the subtracted library which was screened by hybridization using T (Bm5 cell treated with tunicamycin) and D (normal Bm5 cell) cDNA mixture as probes, respectively. A total of 459 subtractive clones were randomly selected.. Among these clones, we have isolated bCyp A gene showing similarity with Cyclophilin of Rotamase. A full-length cDNA sequence of bCyp A comprised 498bp with 166 amino acid residues. The sequence analysis of Cyp A indicates that the enzyme active site and the binding site for CsA are identical and well conserved in 13 residues that constitute the CsA-binding site, including the Trp residue essential for binding. As the above results, we suggest that bCyp A is a family of cyclophilin A.