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MOLECULAR CLONING AND ANALYSIS OF *ORYZA SATIVA* AUXIN-BINDING PROTEIN 1 GENE

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Auxin regulates divers aspects of plant growth and development, the first step in an auxin response pathway is the binding to its receptors, named auxin-binding proteins(ABPs). The *ABP* gene of commercially important *Oryza sativa* is still unknown although some *ABP* genes have been cloned in other plants. In order to understand more about the *Oryza sativa* auxin-binding protein and its signal transduction pathway, we obtained and analyzed its full-length cDNA sequence by bioinformatics and laboratory bench-work. An unnamed *Oryza sativa* cDNA sequence was obtained from online nucleotide sequence database, the putative open reading frame of the sequence encodes a presumptive protein containing 206 amino acid residues. Blast results against the current GenBank DNA and protein databases as well as protein conformation reveal significant homology with the *ABP1* gene and ABP1 protein in other plants. These results suggest that the sequence is *Oryza sativa* ABP1 cDNA. Based on the sequence, ABP1 cDNA of *Oryza sativa* was amplified with RT-PCR and cloned for sequencing, the sequencing results was found to be identical with the former unnamed cDNA sequence obtained from the online database.