Cloning and Expression of Taxus Acyltransferase cDNA

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A new full-length acyltransferase cDNA was obtained from Taxus chinensis by homology-

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based cloning strategy. The cDNA has an open-reading frame of 1,275 nucleotides, which encodes 425 amino acids with a calculated molecular weight of 47,241 Da and an estimated pI value of 5.93. The deduced amino acid sequence resembles the sequences of other cloned acyltransferases (56–61% identity; 71–75% similarity) involved directly in taxol biosynthetic pathways. This cDNA was expressed in *Escherichia coli* using the expression vector pET-32a(+). The expression band corresponds to the calculated mass plus the *N*-terminal fusion

protein derived from the vector.

Key words: Taxus chinensis, Acyltransferase, Expression in E. coli
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