

Molecular cloning and functional expression of CiP from the basidiomycete *Coprinus cinereus*

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Abstract

Peroxidase has many applications such as polymerization bleaching and wastewater treatment⁽¹⁾. A cDNA encoding for a peroxidase was isolated from the fungus *Coprinus cinereus* by RT-PCR⁽²⁾. It contained an open reading frame of 1092 bp. The deduced mature protein consisted of 344 amino acids and was preceded by a signal peptide of 20 amino acid. The cDNA was cloned into the vector pPICZ and expressed in the *Pichia pastoris* X-33. Peroxidase-secreting transformants were selected by their ability to oxidize the substrate 2,2'-azino-bis-(3-ethylbenzthiazoline-6-sulfonic acid)(ABTS). The effects of different signal sequences including α -MF and native on peroxidase expression were examined.

References

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