

PROPERTIES OF A SOLUBLE n-ALKANE MONOOXYGENASE FROM EXTRACTS OF CLADOSPORIUM RASINAE

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ABSTRACT

Cytochrome P450 oxidoreductase of fungi play diverse role in many essential processes of cellular metabolism. Hydrocarbon utilizing ascomycete *Cladosporium rasinae* catalyses initial oxidation of n-hexadecane by n-alkane monooxygenases (AMO). The initial study indicates that the corresponding enzyme is present in soluble extracts of *Cladosporium rasinae* ATCC22712 obtained by centrifugation of crude extracts at 150 000g for 2 hours, catalyze the NAD(P)H and oxygen dependent oxidation of n-hexadecane. The constitutive enzyme system resides mainly in cytosol and functions in soluble form. It prefers NADH as electron donors to NADPH. Soluble n-alkane monooxygenase is a multicomponent enzyme not inhibited by many electron transport inhibitors and chelating agents excepting EDTA.

KEYWORDS: *Cladosporium*, Inhibitors, Monooxygenase, NADH, n-Hexadecane