

Native Hansenula sp. Alcohol Oxidase

Product Information

Cat#	NATE-0046
Abbr	Alcohol Oxidase, Native (Hansenula sp.)
Alias	alcohol oxidase; ethanol oxidase
Similar	Alcohol Oxidase
Source	Hansenula sp.
Description	In enzymology, an alcohol oxidase (EC 1.1.3.13) is an enzyme that catalyzes the chemical reaction: a primary alcohol + O ₂ ↔ an aldehyde + H ₂ O ₂ . Thus, the two substrates of this enzyme are primary alcohol and O ₂ , whereas its two products are aldehyde and H ₂ O ₂ . This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with oxygen as acceptor. It employs one cofactor, FAD.
Applications	Alcohol oxidase is used to catalyze the oxidation of short-chain, primary, aliphatic alcohols to their respective aldehydes. It may be used to study methanol metabolism in yeasts, such as Candida, Pichia, and Hansenula. It is useful to study protein translocation into peroxisomes.
Form	vacuum-dried powder
Enzyme Commission Number	EC 1.1.3.13
Activity	> 0.6 units/mg solid
CAS No.	9073-63-6
Molecular Weight	~600 kDa
pH Stability	pH Range: 5.5-8.5
Unit Definition	One unit will oxidize 1.0 μmole of methanol to formaldehyde per min at pH 7.5 at 25°C.
Optimum pH	8.5



Creative Enzymes

Diagnostic Enzymes

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Stability	-20°C
Inhibitors	1,4-butyne-3-diol (irreversible), propargyl alcohol (irreversible), cyclopropanol, cyclopropanone (suicide substrate), formaldehyde, H ₂ O ₂ , hydroxylamine, KBr, KCN, methanol (substrate inhibitor), NaN ₃ , PCMB, propynal, urea, 4-chloromercuribenzoic acid
Synonyms	EC 1.1.3.13; 9073-63-6; alcohol oxidase; ethanol oxidase; Alcohol:oxygen oxidoreductase