

Native Yeast Alcohol dehydrogenase

Product Information

Cat#	NATE-0975
Abbr	ADH, Native (Yeast)
Alias	ADH
Similar	Alcohol dehydrogenase
Source	Yeast
Description	Alcohol dehydrogenases (ADH) are a group of dehydrogenase enzymes that occur in many organisms and facilitate the interconversion between alcohols and aldehydes or ketones with the reduction of nicotinamide adenine dinucleotide (NAD ⁺ to NADH). In Humans and many other animals, they serve to break down alcohols that otherwise are toxic, and they also participate in generation of useful aldehyde, ketone, or alcohol groups during biosynthesis of various metabolites. In yeast, plants, and many bacteria, some alcohol dehydrogenases catalyze the opposite reaction as part of fermentation to ensure a constant supply of NAD ⁺ .
Applications	Use Alcohol Dehydrogenase in diagnostic tests for the determination of alcohol or aldehyde (formate).
Appearance	White lyophilizate (50 mg lyophilizate contain approximately 30 mg enzyme protein, 15 mg sucrose, 5 mg phosphate)
Product Overview	Dehydrogenase that catalyzes the interconversion of alcohols to the corresponding aldehydes. Rely on the proven diagnostic quality of this product.
Form	Solids containing 300 U/mg
CAS No.	9031-72-5
Specificity	Alcohol dehydrogenase oxidizes primary alcohols. Isopropanol and secondary butanol are slowly oxidized, while higher secondary and tertiary alcohols do not react. Numerous aldehydes are reduced in the reverse reaction. The enzyme does not react with NADP.



Creative Enzymes

Diagnostic Enzymes

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Storage	-20°C
Inhibitors	SH-reagents and heavy metals, such as derivatives, 4-chloromercuribenzoate, iodoacetic acid, N-substituted maleinimides, Hg ²⁺ , Ag ⁺ and Cu ²⁺ . Complexing agents, e.g., o- phenanthroline, EDTA, oxalate. NAD analogs and NAD partial structures, e.g., NADP, NADH, ADP, ADP-ribose. Substances, which react with enzyme bound NAD, e.g., sulfite, hydroxylamine, cyanide. Substrate analogs, e.g., fluoroethanol. Oxidizers, e.g., H ₂ O ₂ and aerial oxygen inactivate by oxidation of essential groups.
Synonyms	aldehyde reductase; ADH; alcohol dehydrogenase (NAD); aliphatic alcohol dehydrogenase; ethanol dehydrogenase; NAD-dependent alcohol dehydrogenase; NAD-specific aromatic alcohol dehydrogenase; NADH-alcohol dehydrogenase; NADH-aldehyde dehydrogenase; primary alcohol dehydrogenase; yeast alcohol dehydrogenase