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## ADH4 Protein, Saccharomyces cerevisiae

| Cat. No.: | HY-P701928 |
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| Synonyms: | ADH4; Alcohol dehydrogenase 4; Alcohol dehydrogenase IV; ADHIV |
| Species: | Others |
| Source: | E. coli |
| Accession: | P10127 (S2-Y382) |
| Gene ID: | 852636 |

Molecular Weight:

## PROPERTIES

## Appearance

Solution

Formulation Supplied as a $0.22 \mu \mathrm{~m}$ filtered solution of 50 mM Tris- $\mathrm{HCl}, \mathrm{pH} 7.5,200 \mathrm{mM} \mathrm{NaCl}, 20 \%$ glycerol.

Endotoxin Level $<1 \mathrm{EU} / \mu \mathrm{g}$, determined by LAL method.

Reconsititution Please use rapid thawing with running water to thaw the protein.

Storage \& Stability Stored at $-80^{\circ} \mathrm{C}$ for 1 year. It is stable at $-20^{\circ} \mathrm{C}$ for 3 months after opening. It is recommended to freeze aliquots at $-80^{\circ} \mathrm{C}$ for extended storage. Avoid repeated freeze-thaw cycles.

Shipping Shipping with dry ice.

## DESCRIPTION

## Background

ADH4 Protein functions as a specific alcohol dehydrogenase with a distinct preference for ethanol, primarily serving as a mitochondrial formaldehyde dehydrogenase without influencing ethanol production. Its enzymatic activity is notably diminished towards primary alcohols containing four carbon atoms or more, with isomers of aliphatic alcohol, secondary alcohols, and glycerol exhibiting no reactivity. While the precise role of ADH4 in yeast metabolism remains unclear, it is established that ADH4 does not play a role in ethanol production during growth on glucose, nor is it involved in the oxidation of ethanol to acetaldehyde. This delineation of substrate specificity and functional characteristics provides insights into ADH4's specific role within cellular processes, shedding light on its unique contribution to alcohol metabolism and mitochondrial formaldehyde oxidation.

Caution: Product has not been fully validated for medical applications. For research use only.
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