

## Secondary Alcohol Dehydrogenase (Crude Enzyme)

Cat. No. NATE-1786

Lot. No. (See product label)

### Introduction

#### 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<sup>+</sup> 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<sup>+</sup>. This product with the indicated enzyme activity was briefly purified from engineered *E. coli*, and can be used for NADH regeneration in biotechnology.

#### Applications

synthesis; medicine; biotechnology

#### 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

### Product Information

#### Source

*E. coli*

#### Appearance

Clear to translucent yellow solution

#### EC Number

EC 1.1.1.1

#### CAS No.

9031-72-5

#### Activity

Undetermined

#### Reaction

a secondary alcohol + NAD<sup>+</sup> = a ketone + NADH + H<sup>+</sup>

#### Notes

Since this product needs to be freshly prepared, it will take about 2 weeks after you confirm the order. Each time of the freeze-thawing may cause partial inactivation. Therefore, it should be dispensed as required and stored at -20 ° C or lower. With the preservation of the extension of time, the enzyme activity will decline to a certain extent, so the product should be used as soon as possible. This product may have turbidity or precipitation in the production and preservation process, it can be mixed after melting and will not affect the normal use. This product is limited to scientific research use, shall not be used for clinical diagnosis or treatment, shall not be used for food or medicine, shall not be stored in ordinary residential. For your safety and health, please wear an experimental suit and wear disposable gloves.

### Usage and Packaging

#### Package

100ml

## ***Storage and Shipping Information***

### ***Storage***

at -20 °C or lower, for at least 1 month.