Creative Enzymes®

Native Yeast Aldehyde Dehydrogenase

Cat. No. NATE-0902

Lot. No. (See product label)

Introduction

Description In enzymology, an aldehyde dehydrogenase [NAD(P)+] (EC 1.2.1.5) is an enzyme that catalyzes the chemical reaction: an aldehyde + NAD(P)+ + H2O ↔ an acid + NAD(P)H + H+. The 4 substrates of this enzyme are aldehyde, NAD+, NADP+, and H2O, whereas its 4 products are acid, NADH, NADPH, and H+. This enzyme belongs to the family of oxidoreductases, specifically those acting on the aldehyde or oxo group of donor with NAD+ or NADP+ as acceptor. This enzyme participates in 5 metabolic pathways: glycolysis / gluconeogenesis, histidine metabolism, tyrosine metabolism, phenylalanine metabolism, and metabolism of xenobiotics by cytochrome p450.

Applications Component of NADH and NADPH recycling systems.

Synonyms aldehyde:NAD(P)+ oxidoreductase; aldehyde dehydrogenase [NAD(P)+]; ALDH; Aldehyde Dehydrogenase; EC 1.2.1.5

Product Information

Source Yeast

Form Lyophilized

EC Number EC 1.2.1.5

CAS No. 9028-88-0

Activity ~20 units/mg protein (At 25 °C with acetaldehyde as the substrate.)

Contaminants <0.01% “NADH oxidase”, ADH, and LDH each

Optimum pH 8.75