

## 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)+ + H<sub>2</sub>O ⇌ an acid + NAD(P)H + H<sup>+</sup>. The 4 substrates of this enzyme are aldehyde, NAD<sup>+</sup>, NADP<sup>+</sup>, and H<sub>2</sub>O, whereas its 4 products are acid, NADH, NADPH, and H<sup>+</sup>. This enzyme belongs to the family of oxidoreductases, specifically those acting on the aldehyde or oxo group of donor with NAD<sup>+</sup> or NADP<sup>+</sup> 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