ADH

Alcohol dehydrogenase EC 1.1.1.1

from Yeast

Reaction Equation

Alcohol + NAD^+ = Aldehyde or Ketone + NADH

Specification

Specific Activity

U/mg protein	> 300 units

Contaminants

Carboxylase	< 0.05%
Glyceraldehyde-3-phosphate dehydrogenase	< 0.05%
Phosphoglycerate kinase	< 0.05%
Myokinase	< 0.03%
Aldolase	< 0.02%
Pyruvate kinase	< 0.01%
Lactate dehydrogenase	< 0.01%

Assay Procedure

I Spectrophotometric Method

Wavelength : 340 nm, Light path length : 1 cm
Temperature : 25 °C

Pipette the following reagents into a cuvette

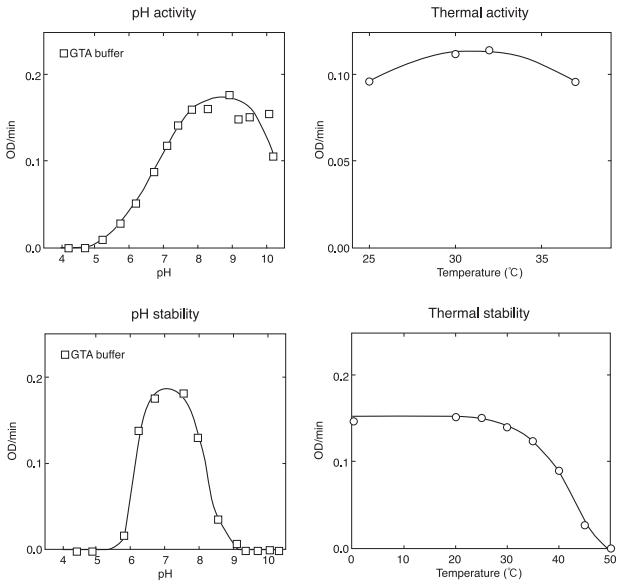
2.75 mL	Na-pyrophosphate buffer (10.9 mmol/L, pH 8.8) containing Ethanol (1.13 mol/L)
0.25 mL	NAD^+ (10 mmol/L)
0.02 mL	ADH (approx. 3 U/mL)

II Calculation

$$\frac{\Delta\ A/min \cdot V \cdot D}{6.3 \cdot d \cdot v} = U/mL$$

Δ A/min = The change in absorbance at 340 nm/minute
V = Total volume of reaction mixture (3.02 mL)
D = Enzyme dilution factor
6.3 = mmol/L extinction coefficient of NADH ($L \cdot mmol^{-1} \cdot cm^{-1}$)
d = Light path length (1 cm)
v = Volume of enzyme sample (0.02 mL)

Reference Data



Preparation and Storage

Lyophilized powder
Store below -20 °C

Cat. No./Package

Cat. No.	Package
46410001	15,000 units
46409901	Bulk

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