A D H

Alcohol dehydrogenase

Alcohol : NAD^+ oxidoreductase (EC 1.1.1.1)

from Yeast

Reaction Equation

Alcohol + NAD^+ = Aldehyde or Ketone + NADH

Specification

	Specifications
Specific Activity	
IU/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℃

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)

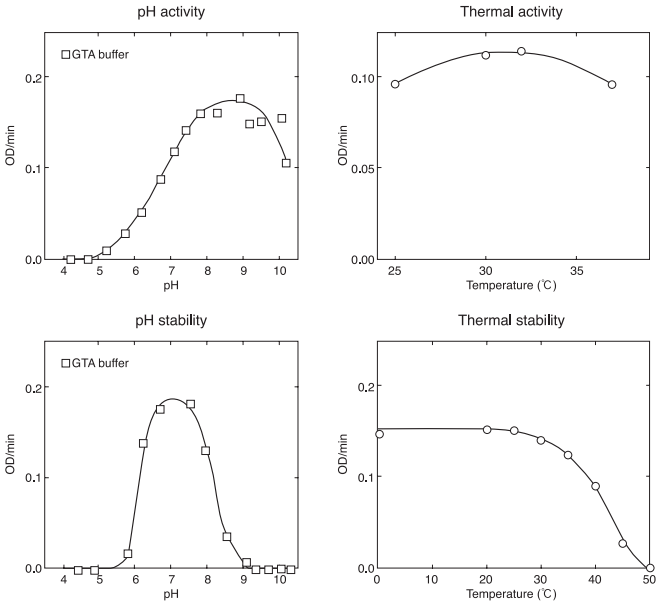
0.02 mL ADH (about 3 IU/mL)

Ⅱ. Calculation

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

ΔA/min = The change in absorbance at 340 nm/minute
V = Total volume of reaction mixture (3.02 mL)
D = Enzyme dilution factor
6.3 = mM 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

Product Code : ADH-01
Lyophilized powder (contains ammonium sulfate)
……below −20℃
IU per 1 mg powder is approximately 100 units.

Product Code : ADH-05
50% Glycerol solution…… −25℃ ~ −15℃
IU per 1 ml solution is approximately 1,500 units.

OYC No./Package

Lyophilized

OYC No.	Package
46410001	15,000 units
46411001	75,000 units
46412001	300,000 units
46409901	Bulk

Glycerol solution

OYC No.	Package
46410005	15,000 units
46411005	75,000 units
46412005	300,000 units
46409905	Bulk

(Research reagent use only, not for medical use.)