

GIDH (NADP)

Glutamate dehydrogenase (NADP⁺)

L-Glutamate : NADP⁺ oxidoreductase (deaminating) (EC 1.4.1.4)

from Yeast

Reaction Equation



Specification

Specific Activity

IU/mg protein
(in case of using L-Glutamate as substrates)

Specifications
>10 units

Contaminants

Glucose-6-phosphate dehydrogenase	<0.1%
Phosphogluconate dehydrogenase	<0.5%
Glutamate dehydrogenase (NAD ⁺)	<0.1%
Glutathione reductase	<0.1%
NADPH oxidase	<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

2.85 mL Na-Pyrophosphate buffer (0.1 mol/L, pH 9.0)
containing L-Glutamate (0.1 mol/L)
0.15 mL NADP⁺ (10 mmol/L)
0.02 mL GIDH (NADP) (about 3 IU/mL)

II. Calculation

$$\frac{\Delta A/\text{min} \cdot V \cdot D}{6.2 \cdot d \cdot v} = \text{IU/mL}$$

$\Delta A/\text{min}$ = The change in absorbance at 340 nm/minute

V = Total volume of reaction mixture (3.02 mL)

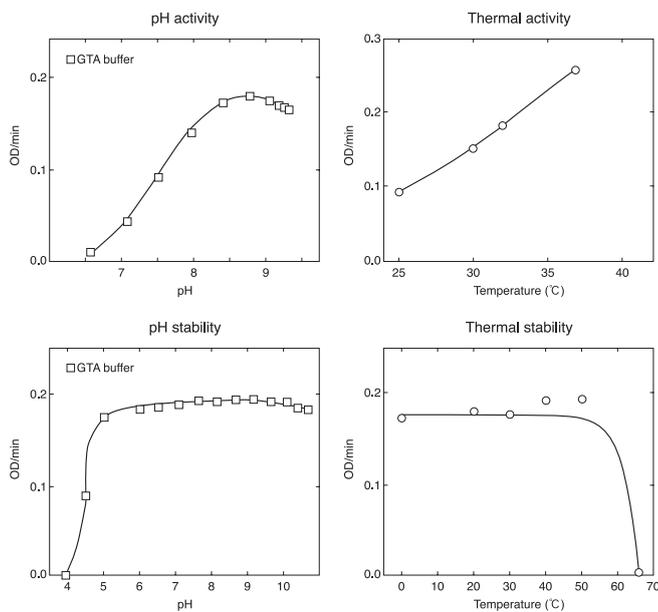
D = Enzyme dilution factor

6.2 = mM extinction coefficient of NADPH
(L · mmol⁻¹ · cm⁻¹)

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Reference Data



Preparation and storage

Product Code : GIDH-03

Lyophilized powder (contains no ammonium sulfate)
.....below -20°C

IU per 1 mg powder is approximately 30 units.

OYC No./Package

OYC No.	Package
46485003	150 units
46486003	600 units
46487003	3,000 units
46489903	Bulk

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

