rGlDH (NADP)

Glutamate dehydrogenase (NADP$^+$), recombinant from bacteria

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

Host cell : E. coli

Reaction Equation

L-Glutamate + H_2O + $NADP^+$
= 2-Oxoglutarate + NH_3 + NADPH

Specification

	Specifications
Specific Activity	
IU/mg protein	>60 units
Contaminants	
Glucose-6-phosphate dehydrogenase	<0.02%
Phosphogluconate dehydrogenase	<0.1%
Glutamate dehydrogenase (NAD^+)	<0.03%
Glutathione reductase	<0.02%
NADPH oxidase	<0.003%

Assay Procedure

Ⅰ. Spectrophotometric Method

Wavelength ; 340 nm, Light path length ; 1 cm,
Temperature ; 25℃

Pipette the following reagents into a cuvette

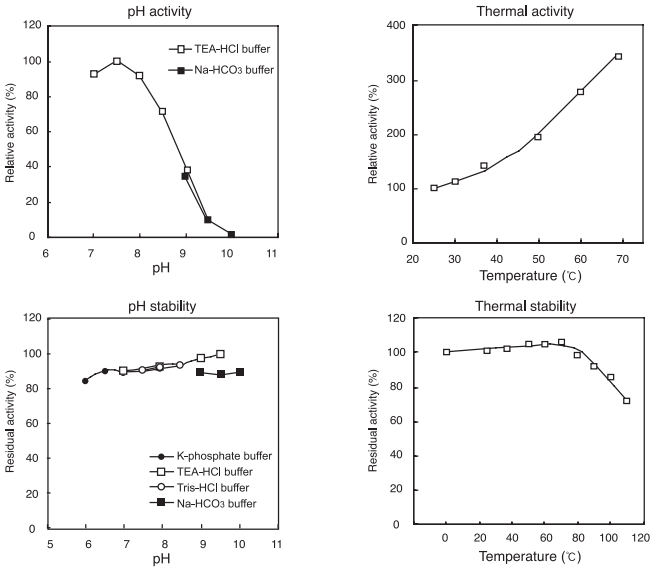
2.50 mL	Triethanolamine·HCl-NaOH buffer (0.1 mol/L, pH 7.6)
0.15 mL	α-Ketoglutarate(0.1 mol/L)
0.05 mL	NADPH (12 mmol/L)
0.30 mL	Ammonium acetate (2 mol/L)
0.02 mL	rGlDH (NADPH) (about 3 IU/mL)

Ⅱ. Calculation

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

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

Reference Data



Preparation and storage

Solution……1～10℃
IU per 1 mL solution is around 8,000～10,000 units.

OYC No./Package

OYC No.	Package
46764004	1,000 units
46765004	3,000 units
46766004	15,000 units
46764904	Bulk

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