

rICDH(NADP)

recombinant Isocitrate dehydrogenase (NADP⁺) EC 1.1.1.42

from Yeast

Reaction Equation

Isocitrate + NADP⁺ = α -Ketoglutarate + CO₂ + NADPH

Specification

Specific Activity

U/mg protein > 30 units

Contaminants

Isocitrate dehydrogenase (NAD⁺) < 0.5%

Assay Procedure

I Spectrophotometric Method

Wavelength : 340 nm, Light path length : 1 cm

Temperature : 25 °C

Pipette the following reagents into a cuvette

2.50 mL Tris-HCl buffer (0.1 mol/L, pH 8.5)

0.15 mL MgCl₂ (0.1 mol/L)

0.05 mL Isocitrate (0.1 mol/L)

0.15 mL NADP⁺ (20 mmol/L)

0.02 mL rICDH (NADP) (approx. 3 U/mL)

II Calculation

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

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

V = Total volume of reaction mixture (2.87 mL)

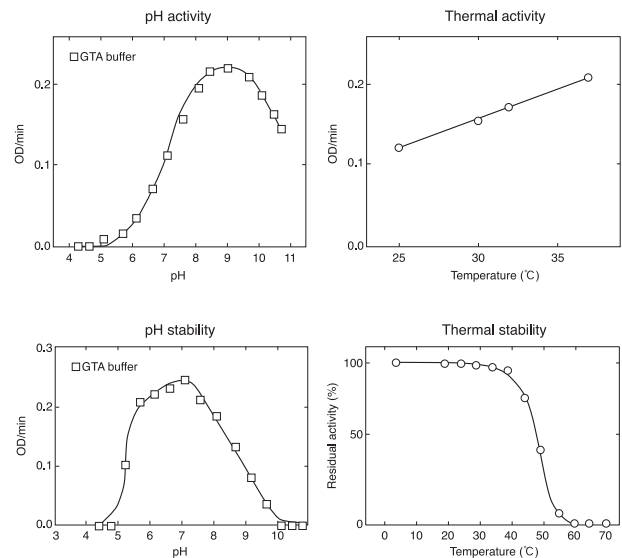
D = Enzyme dilution factor

6.2 = mmol/L 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

50% Glycerol solution

Store below -20 °C

Cat. No./Package

| Cat. No. | Package |
|----------|-------------|
| 46476015 | 3,000 units |
| 46720905 | Bulk |

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