

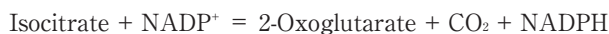
rICDH (Taq)

Isocitrate dehydrogenase (NADP⁺), recombinant from bacteria

threo-Ds-Isocitrate : NADP⁺ oxidoreductase (decarboxylating) (EC 1.1.1.42)

Host cell : E. coli

Reaction Equation



Specification

Specific Activity

IU/mg protein

Specifications
>20 units

Contaminants

NADPH oxidase
Phosphatase

<0.01%
<0.00015%

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 (Taq) (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 (2.87 mL)

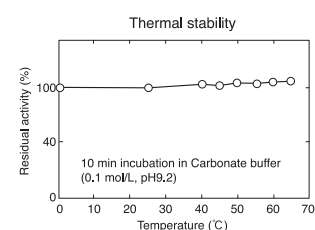
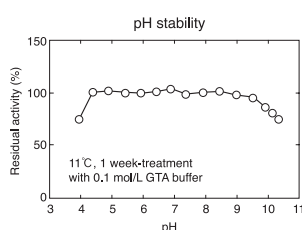
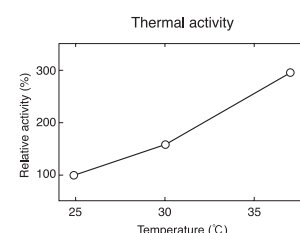
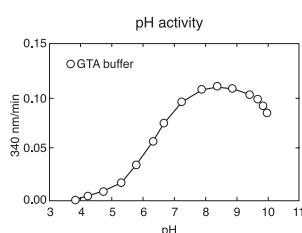
D = Enzyme dilution factor

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 : rICDH (Taq)-03

Lyophilized powder (contains no ammonium sulfate)

.....below -20°C

OYC No./Package

OYC No.	Package
46745003	150 units
46745903	Bulk

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



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