

rLDH(PH)

recombinant Lactate dehydrogenase EC 1.1.1.27

from Pig heart

Reaction Equation



Specification

Specific Activity

U/mg protein > 260 units

Contaminants

Malate dehydrogenase < 0.03%

Myokinase < 0.01%

Pyruvate kinase < 0.003%

Glutamic-pyruvic transaminase* < 0.03%

Glutamic-oxaloacetic transaminase* < 0.03%

*Including α -Hydroxyglutarate dehydrogenase activity

Properties

pH stability : pH 5.5 - 8.0 (25°C, 1 week)

Thermal stability : $\leq 55^\circ\text{C}$ (pH 7.5, 10 min)

Optimum pH : 7.0 - 8.0

Optimum temp. : 70°C

Km value : 6.5×10^{-5} mol/L (Pyruvate)
 1.8×10^{-5} mol/L (NADH)

Molecular weight : 36 kDa (SDS-PAGE)

Assay Procedure

I Spectrophotometric Method

Wavelength : 340 nm, Light path length : 1 cm

Final volume : 3.17 mL, Temperature : 25°C

Pipette the following reagents into a cuvette

3.00 mL K-phosphate buffer (0.1 mol/L, pH 7.0)

0.10 mL Na-pyruvate (25.4 mmol/L)

0.05 mL NADH (10 mg/mL) dissolved in Tris
(10 mmol/L)

0.02 mL rLDH (PH) (approx. 3 U/mL)

II Calculation

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

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

V = Total volume of reaction mixture (3.17 mL)

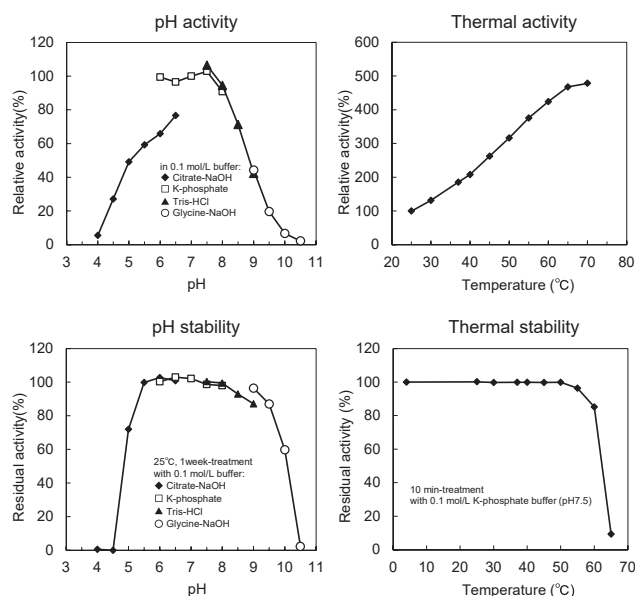
D = Enzyme dilution factor

6.3 = mmol/L extinction coefficient of NADH
 $(\text{L} \cdot \text{mmol}^{-1} \cdot \text{cm}^{-1})$

d = Light path length (1 cm)

v = Volume of enzyme sample (0.02 mL)

Reference Data



Preparation and Storage

Lyophilized powder

Store below -20°C

Cat. No./Package

Cat. No. Package

46775003 10,000 units

46862903 Bulk

For in vitro diagnostic or research use only



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