

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°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)

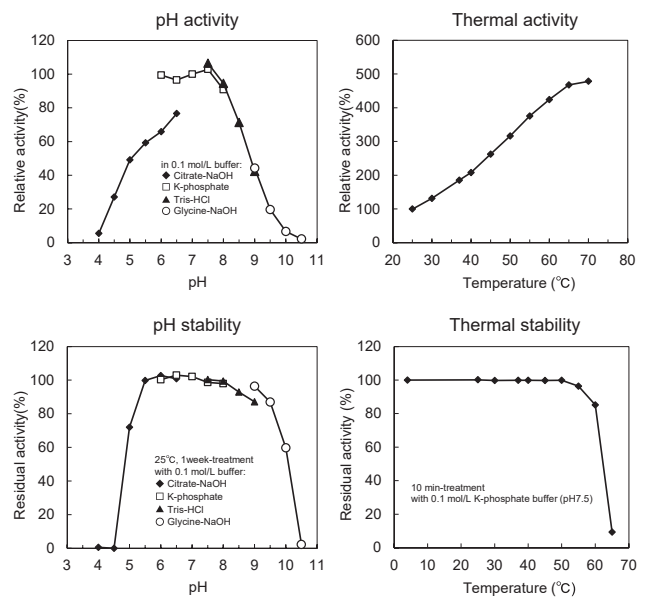
D = Enzyme dilution factor

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 |

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