

rLDH(RM)

recombinant Lactate dehydrogenase EC 1.1.1.27

from Rabbit muscle

Reaction Equation



Specification

Specific Activity

U/mg protein > 400 units

Contaminants

Malate dehydrogenase	< 0.03%
Myokinase	< 0.01%
Pyruvate kinase	< 0.01%
Glutamic-pyruvic transaminase*	< 0.005%
Glutamic-oxaloacetic transaminase*	< 0.005%

*Including α -Hydroxyglutarate dehydrogenase activity

Properties

pH stability	: pH 6.5 - 8.0 (25°C, 1 week)
Thermal stability	: $\leq 45^\circ\text{C}$ (pH 7.5, 10 min)
Optimum pH	: 6.0
Optimum temp.	: 50°C
Km value	: 2.1×10^{-4} mol/L (Pyruvate) 1.2×10^{-5} mol/L (NADH)
Molecular weight	: 34 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 (RM) (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)

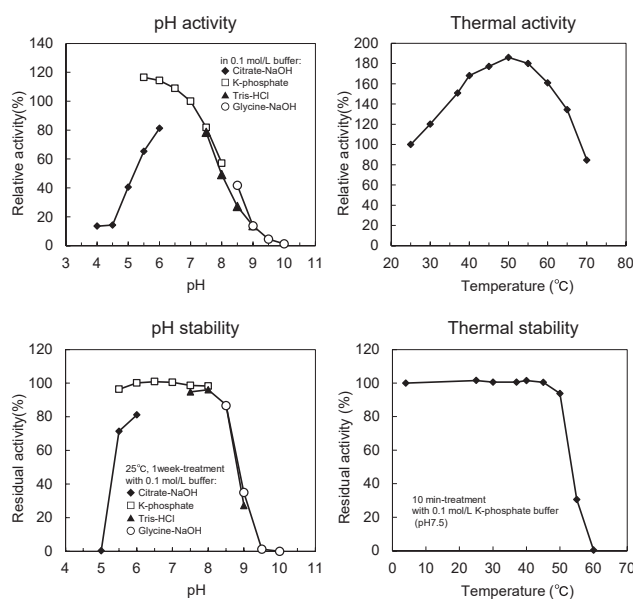
D = Enzyme dilution factor

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	Cat. No.	Package
46776003	10,000 units	46782003	100,000 units
46781003	50,000 units	46764900	Bulk

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