



Lactate Dehydrogenase Catalogue No. LADE-70-1411

Origin: Microbial

Specifications:

Appearance: Freeze Dried Powder
 Activity: > 100u/mg powder at 25°C
 Contaminants: NADH Oxidase: <0.0001%
 Alpha- Ketoglutaric Dehydrogenase: <0.0003%
 Glutamic-oxaloacetic Transaminase: <0.0005%
 Glutamic-pyruvic Transaminase: <0.0005%
 Myokinase: <0.1%

Characteristics:

Molecular Weight:	64kDa	
Isoelectric point:	4.3	
K _m values:	NADH	7.6 x 10 ⁻⁴ M
	Pyruvate	6.7 x 10 ⁻⁴ M
Optimum pH:	5.0	See Fig. 1
Optimum temp.:	40°C	See Fig. 2
pH stability:	5.5-8.5 (30°C, 60 min.)	See Fig. 3
Thermal stability:	Below 35°C (pH 7.0, 60 min.)	See Fig. 4
Lyophilised stability:	2 years at -20°C	

Fig. 1 pH Optimum

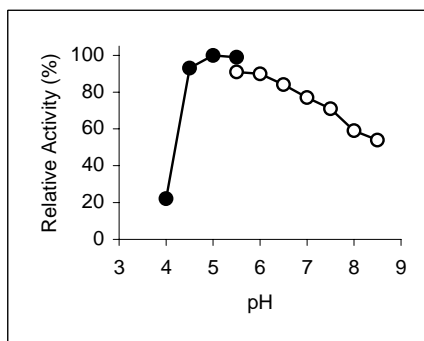
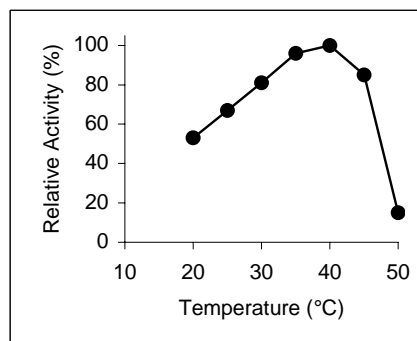


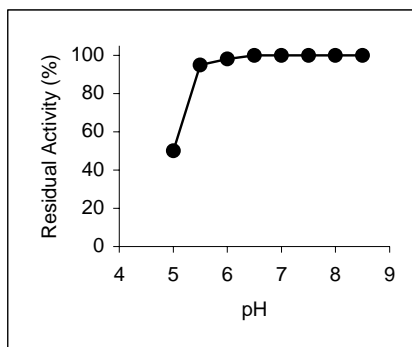
Fig. 2 Temperature Optimum





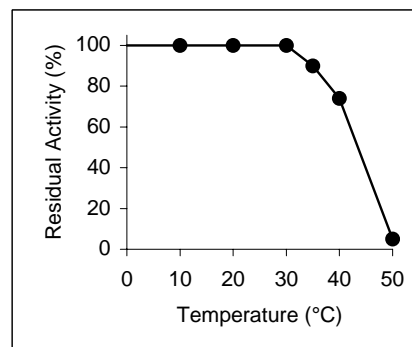
Lactate Dehydrogenase (Catalogue No. 1411)

Fig. 3. pH Stability



30°C, 1hr.

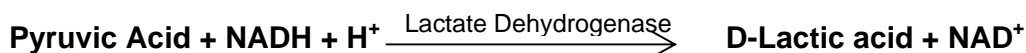
Fig. 4 Thermal Stability



pH 7.0, 1hr.

Assay Principle:

Lactate Dehydrogenase catalyses the following reaction:



The disappearance of NADH can be measured spectrophotometrically at 340nm.

Unit Definition:

One unit of activity is defined as the amount of enzyme that will catalyse the oxidation of 1.0 micromole of NADH per minute at 25°C under standard assay method conditions.

(See Analytical Method for full details)

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