Creative Enzymes®

Native Porcine heart Lactate dehydrogenase

Cat. No. DIA-206

Lot. No. (See product label)

Introduction

Description	A lactate dehydrogenase (LDH or LD) is an enzyme found in nearly all living cells (animals, plants, and prokaryotes). LDH catalyzes the conversion of pyruvate to lactate and back, as it converts NADH to NAD+ and back. A dehydrogenase is an enzyme that transfers a hydride from one molecule to another.
Applications	This enzyme is useful for enzymatic determination of numerous metabolites, e.g.ATP, ADP, glucose, creatinine, pyruvate, lactate and glycerol, and of enzyme activities, e.g.GPT, PK and CPK when coupled with the related enzymes.
Synonyms	Lactate dehydrogenase; EC 1.1.1.27; LDH; LD

Product Information

Species	Porcine
Source	Porcine heart
Appearance	Crystalline suspension in 1.6M ammonium sulfate solution
EC Number	EC 1.1.1.27
CAS No.	9001-60-9
Molecular Weight	115 kDa±6,500
Activity	GradeⅡ 2,000U/ml or more
Contaminants	Malate dehydrogenase < 5.0×10^{-2}% Pyruvate kinase < 3.0×10^{-2}% GPT < 3.0×10^{-2}%
pH Stability	pH 6.0-8.0(23°C, 22hr)
Optimum pH	6.0-7.4
Thermal stability	below 50°C(pH 7.4, 10min)
Optimum temperature	above 60°C
Michaelis Constant	2.5×10^{-2}M (Lactate), 1.0×10^{-4}M (Pyruvate)
Inhibitors	I^-, Ag^+, Hg^{++}, p-chloromercuribenzoate, LDH inhibitors (formed from NADH)
Stabilizers	NADH, 2-mercaptoethanol

Storage and Shipping Information

Stability	Stable at 5°C for at least one year