Creative Enzymes®

Native Microorganism D-lactate dehydrogenase

Cat. No. DIA-207

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

Source	Microorganism
Appearance	White amorphous powder, lyophilized
EC Number	EC 1.1.1.28
CAS No.	9028-36-8
Molecular Weight	approx. 140 kDa (by gel filtration)
Activity	GradeⅡ 400U/mg-solid or more
Contaminants	NADH oxidase < 1.0×10^{-3}% Malate dehydrogenase < 1.0×10^{-2}% GOT < 5.0×10^{-3}% GPT < 5.0×10^{-3}% Myokinase < 1.0×10^{-2}% Pyruvate kinase< 1.0×10^{-3}%
Isoelectric point	4
pH Stability	pH 5.0-9.0 (25°C, 48hr)
Optimum pH	6.0-7.0
Thermal stability	below 45°C (pH 7.0, 15min)
Optimum temperature	35-40°C
Michaelis Constant	1.6×10^{-4}M (pyruvate, pH 7.0)
Inhibitors	Ag^{+}, Hg^{++}, SH-reagents

Storage and Shipping Information

Stability	Store at -20°C