

D-Lactate dehydrogenase from Bacteria, Recombinant

Cat. No. NATE-1042

Lot. No. (See product label)

Introduction

Description

In enzymology, a D-lactate dehydrogenase is an enzyme that catalyzes the chemical reaction: (D)-lactate + 2 ferricytochrome c \rightleftharpoons pyruvate + 2 ferrocytochrome c. Thus, the two substrates of this enzyme are (D)-lactate and ferricytochrome c, whereas its two products are pyruvate and ferrocytochrome c. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with a cytochrome as acceptor. This enzyme participates in pyruvate metabolism. It employs one cofactor, FAD.

Synonyms

EC 1.1.1.28; D-Lactic Dehydrogenase; 9028-36-8; (D)-lactate:ferricytochrome-c 2-oxidoreductase; lactic acid dehydrogenase; D-lactate (cytochrome) dehydrogenase; cytochrome-dependent D-(–)-lactate dehydrogenase; D-lactate-cytochrome c reductase; D-(–)-lactic cytochrome c reductase

Product Information

Species

Bacteria

Source

E. coli

Form

Lyophilized powder

EC Number

EC 1.1.1.28

CAS No.

9028-36-8

Molecular Weight

44 kD (SDS-PAGE)

Activity

> 800 U/mg Protein

Contaminants

Malate dehydrogenase : < 0.03% Myokinase : < 0.02% Pyruvate kinase: <0.003%
Alanine aminotransferase: <0.001% Aspartate aminotransferase: <0.001% a-Hydroxyglutamate dehydrogenase: <0.001%

pH Stability

5.0 - 10.0

Optimum pH

7

Thermal stability

<50°C

Optimum temperature

45°C

Storage and Shipping Information

Storage

Below -20°C