

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% α-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