Creative Enzymes®

# D-lactate Dehydrogenase from E. coli, Recombinant

*Cat. No. NATE-1654*

*Lot. No.* (See product label)

## Introduction

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| ***Description*** | In enzymology, a D-lactate dehydrogenase is an enzyme that catalyzes the chemical reaction: (D)-lactate + 2 ferricytochrome c↔ 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

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| ***Source*** | E. coli |
| ***Form*** | Liquid |
| ***Formulation*** | 4.0 mg/ml in 20 mM potassium phosphate, 100 mM NaCl, pH 8.0 and 10% glycerol |
| ***EC Number*** | EC 1.1.1.28 |
| ***Molecular Weight*** | 39.1 kDa |
| ***Purity*** | > 95% by SDS-PAGE |
| ***Activity*** | > 200 units/mg |
| ***Concentration*** | 1 mg/ml |
| ***Unit Definition*** | One unit will convert 1.0 umole of pyruvate to L-lactate and beta-NAD per minute at pH 7.5 at 37°C. |

## Storage and Shipping Information

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| ***Storage*** | Store at +4°C for short term (1-2 weeks). For long term storage, aliquot and store at -70°C. Avoid repeated freeze/thaw cycles. |