Creative Enzymes®

Native Bacillus cereus L-Leucine Dehydrogenase

Cat. No. NATE-0391

Lot. No. (See product label)

Introduction

Description In enzymology, a leucine dehydrogenase (EC 1.4.1.9) is an enzyme that catalyzes the chemical reaction:L-leucine + H2O + NAD+↔ 4-methyl-2-oxopentanoate + NH3 + NADH + H+. The 3 substrates of this enzyme are L-leucine, H2O, and NAD+, whereas its 4 products are 4-methyl-2-oxopentanoate, NH3, NADH, and H+. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-NH2 group of donors with NAD+ or NADP+ as acceptor. This enzyme participates in valine, leucine and isoleucine degradation and valine, leucine and isoleucine biosynthesis.

Synonyms leucine dehydrogenase; L-leucine dehydrogenase; L-leucine:NAD+ oxidoreductase (deaminating); LeuDH; EC 1.4.1.9; 9082-71-7

Product Information

Source Bacillus cereus

Form lyophilized powder

EC Number EC 1.4.1.9

CAS No. 9082-71-7

Activity 60-120 units/mg protein (Lowry)

Unit Definition One unit will convert 1.0 μmole of L-leucine to α-ketoisecaproate per min at pH 10.5 at 37°C.

Storage and Shipping Information

Storage −20°C