

## 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 + H<sub>2</sub>O + NAD<sup>+</sup> ↔ 4-methyl-2-oxopentanoate + NH<sub>3</sub> + NADH + H<sup>+</sup>. The 3 substrates of this enzyme are L-leucine, H<sub>2</sub>O, and NAD<sup>+</sup>, whereas its 4 products are 4-methyl-2-oxopentanoate, NH<sub>3</sub>, NADH, and H<sup>+</sup>. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-NH<sub>2</sub> group of donors with NAD<sup>+</sup> or NADP<sup>+</sup> 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<sup>+</sup> 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