

D-Amino acid dehydrogenase, Recombinant

Cat. No. NATE-0825

Lot. No. (See product label)

Introduction

Description

D-amino-acid dehydrogenase (EC 1.4.99.1) is a bacterial enzyme that catalyses the oxidation of D-amino acids into their corresponding oxoacids. It contains both flavin and nonheme iron as cofactors. The enzyme has a very broad specificity and can act on most D-amino acids. $\text{D-amino acid} + \text{H}_2\text{O} + \text{acceptor} \rightleftharpoons \text{a 2-oxo acid} + \text{NH}_3 + \text{reduced acceptor}$. This reaction is distinct from the oxidation reaction catalysed by D-amino acid oxidase that uses oxygen as a second substrate, as the dehydrogenase can use many different compounds as electron acceptors, with the physiological substrate being coenzyme Q. D-amino-acid dehydrogenase is used in enzyme assays to measure substrate specificity of D-amino acids, such as DauA.

Applications

D-amino-acid dehydrogenase is a bacterial enzyme that catalyses the oxidation of D-amino acids into their corresponding oxoacids. It contains flavin and nonheme iron as cofactors and has a broad specificity thereby acting on most D-amino acids.

Synonyms

D-Amino acid dehydrogenase; EC 1.4.99.1; 37205-44-0

Product Information

Source

E. coli

EC Number

EC 1.4.99.1

CAS No.

37205-44-0

Activity

>26 U/g

Unit Definition

1 U corresponds to the amount of enzyme which reduces 1 μmol 2-ketoglutarate per minute at pH 9.0 and 25°C (cosubstrate NADPH).

Storage and Shipping Information

Storage

Store at 2-8°C