

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. $D\text{-amino acid} + H_2O + \text{acceptor} \rightleftharpoons a\ 2\text{-oxo acid} + NH_3 + \text{reduced acceptor}$. 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