Creative Enzymes®

aspartate-semialdehyde dehydrogenase

Cat. No. EXWM-1117

Lot. No. (See product label)

Introduction

Description	In enzymology, an aspartate-semialdehyde dehydrogenase (EC 1.2.1.11) is an enzyme that is very important in the biosynthesis of amino acids in prokaryotes, fungi, and some higher plants. It forms an early branch point in the metabolic pathway forming lysine, methionine, leucine and isoleucine from aspartate. This pathway also produces diaminopimelate which plays an essential role in bacterial cell wall formation. There is particular interest in ASADH as disabling this enzyme proves fatal to the organism giving rise to the possibility of a new class of antibiotics, fungicides, and herbicides aimed at inhibiting it.
Synonyms	aspartate semialdehyde dehydrogenase; aspartic semialdehyde dehydrogenase; L-aspartate-β-semialdehyde:NADP+ oxidoreductase (phosphorylating); aspartic β-semialdehyde dehydrogenase; ASA dehydrogenase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.2.1.11
CAS No.	9000-98-0
Reaction	L-aspartate 4-semialdehyde + phosphate + NADP+ = L-4-aspartyl phosphate + NADPH + H+
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.