

cystathionine β -lyase

Cat. No. EXWM-5341

Lot. No. (See product label)

Introduction

Description

A pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing L-homocysteine and an unstable enamine product that tautomerizes to an imine form, which undergoes a hydrolytic deamination to form pyruvate and ammonia. The latter reaction, which can occur spontaneously, can also be catalysed by EC 3.5.99.10, 2-iminobutanoate/2-iminopropanoate deaminase. The enzyme from some sources also acts on L-cystine, forming pyruvate, ammonia and cysteine persulfide, and a number of related compounds. Possibly identical, in yeast, with EC 4.4.1.6 S-alkylcysteine lyase.

Synonyms

β -cystathionase; cystine lyase; cystathionine L-homocysteine-lyase (deaminating); L-cystathionine L-homocysteine-lyase (deaminating); CBL

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 4.4.1.8

CAS No.

9055-05-4

Reaction

L-cystathionine + H₂O = L-homocysteine + pyruvate + NH₃ (overall reaction); (1a) L-cystathionine = L-homocysteine + 2-aminoprop-2-enoate; (1b) 2-aminoprop-2-enoate = 2-iminopropanoate (spontaneous); (1c) 2-iminopropanoate + H₂O = pyruvate + NH₃ (spontaneous)

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.