Creative Enzymes®

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