cystathionine γ-lyase

Cat. No. EXWM-5312

Lot. No. (See product label)

Introduction

Description	A multifunctional pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing L-cysteine and an unstable enamine product that tautomerizes to an imine form, which undergoes a hydrolytic deamination to form 2-oxobutanoate and ammonia. The latter reaction, which can occur spontaneously, can also be catalysed by EC 3.5.99.10, 2-iminobutanoate/2-iminopropanoate deaminase. Also catalyses the conversion of L-homoserine to 2-oxobutanoate and ammonia, of L-cystine to thiocysteine, pyruvate and ammonia, and of L-cysteine to pyruvate, hydrogen sulfide and ammonia.
Synonyms	homoserine deaminase; homoserine dehydratase; cystine desulfhydrase; cysteine desulfhydrase; γ-cystathionase; cystathionase; homoserine deaminase-cystathionase; γ-CTL; cystalysin; cysteine lyase; L-cystathionine cysteine-lyase (deaminating); CGL

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.4.1.1
CAS No.	9012-96-8
Reaction	L-cystathionine + H2O = L-cysteine + 2-oxobutanoate + NH3 (overall reaction); (1a) L-cystathionine = L-cysteine + 2-aminobut-2-enoate; (1b) 2-aminobut-2-enoate = 2-iminobutanoate (spontaneous); (1c) 2-iminobutanoate + H2O = 2-oxobutanoate + 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 ℃.