Creative Enzymes®

S-alkylcysteine lyase

Cat. No. EXWM-5340

Lot. No. (See product label)

Introduction

Description	A pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing an alkyl thiol 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. Possibly identical, in yeast, with EC 4.4.1.8 cystathionine β-lyase.
Synonyms	S-alkylcysteinase; alkylcysteine lyase; S-alkyl-L-cysteine sulfoxide lyase; S-alkyl-L-cysteine lyase; S-alkyl-L-cysteinase; alkyl cysteine lyase; S-alkyl-L-cysteine alkylthiol-lyase (deaminating)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.4.1.6
CAS No.	62213-27-8
Reaction	an S-alkyl-L-cysteine + H2O = an alkyl thiol + NH3 + pyruvate (overall reaction); (1a) an S-alkyl-L-cysteine = an alkyl thiol + 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 ℃.