Creative Enzymes®

homocysteine desulfhydrase

Cat. No. EXWM-5321

Lot. No. (See product label)

Introduction

Description	A pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing hydrogen sulfide 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
Synonyms	homocysteine desulfurase; L-homocysteine hydrogen-sulfide-lyase (deaminating)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.4.1.2
CAS No.	9024-41-3
Reaction	L-homocysteine + H2O = hydrogen sulfide + NH3 + 2-oxobutanoate (overall reaction); (1a) L-homocysteine = hydrogen sulfide + 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 ℃.