Creative Enzymes®

L-cysteate sulfo-lyase

Cat. No. EXWM-5327

Lot. No. (See product label)

Introduction

Description	A pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing hydrogensulfite 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. D-Cysteine can also act as a substrate, but more slowly. It is converted into hydrogen sulfide, pyruvate, and ammonia. This inducible enzyme from the marine bacterium Silicibacter pomeroyi DSS-3 forms part of the cysteate-degradation pathway.
Synonyms	L-cysteate sulfo-lyase (deaminating); CuyA; L-cysteate bisulfite-lyase (deaminating; pyruvate-forming)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.4.1.25
Reaction	L-cysteate + H2O = hydrogensulfite + pyruvate + NH3 (overall reaction); (1a) L-cysteate = hydrogensulfite + 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 ℃.