

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