

L-cysteine desulfidase

Cat. No. EXWM-5330

Lot. No. (See product label)

Introduction

Description The enzyme from the archaeon *Methanocaldococcus jannaschii* contains a [4Fe-4S] cluster and is specific for L-cysteine (cf. EC 4.4.1.1, cystathionine γ -lyase). It cleaves a carbon-sulfur bond releasing sulfide and the unstable enamine product 2-aminoprop-2-enoate that tautomerizes to an imine form, which undergoes a hydrolytic deamination to form pyruvate and ammonia. The same reaction can also be catalysed by some pyridoxal-phosphate proteins (cf. EC 4.4.1.1, cystathionine γ -lyase).

Synonyms L-cysteine desulfhydrase

Product Information

Form Liquid or lyophilized powder

EC Number EC 4.4.1.28

Reaction L-cysteine + H₂O = sulfide + NH₃ + pyruvate (overall reaction); (1a) L-cysteine = 2-aminoprop-2-enoate + sulfide; (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.