

## 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  $\beta$ -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 + H<sub>2</sub>O = an alkyl thiol + NH<sub>3</sub> + 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 + H<sub>2</sub>O = pyruvate + NH<sub>3</sub> (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.