

## cystathionine $\beta$ -lyase

Cat. No. EXWM-5341

Lot. No. (See product label)

### Introduction

**Description** A pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing L-homocysteine 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. The enzyme from some sources also acts on L-cystine, forming pyruvate, ammonia and cysteine persulfide, and a number of related compounds. Possibly identical, in yeast, with EC 4.4.1.6 S-alkylcysteine lyase.

**Synonyms**  $\beta$ -cystathionase; cystine lyase; cystathionine L-homocysteine-lyase (deaminating); L-cystathionine L-homocysteine-lyase (deaminating); CBL

### Product Information

**Form** Liquid or lyophilized powder

**EC Number** EC 4.4.1.8

**CAS No.** 9055-05-4

**Reaction** L-cystathionine + H<sub>2</sub>O = L-homocysteine + pyruvate + NH<sub>3</sub> (overall reaction); (1a) L-cystathionine = L-homocysteine + 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.