

## methionine $\gamma$ -lyase

Cat. No. EXWM-5314

Lot. No. (See product label)

### Introduction

**Description** A pyridoxal-phosphate protein. The enzyme cleaves a carbon-sulfur bond, releasing methanethiol and an unstable enamine product that tautomerizes to an imine form, which undergoes a hydrolytic deamination to form 2-oxobutanoate 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 is involved in L-methionine catabolism.

**Synonyms** L-methioninase; methionine lyase; methioninase; methionine dethiomethylase; L-methionine  $\gamma$ -lyase; L-methionine methanethiol-lyase (deaminating)

### Product Information

**Form** Liquid or lyophilized powder

**EC Number** EC 4.4.1.11

**CAS No.** 42616-25-1

**Reaction** L-methionine + H<sub>2</sub>O = methanethiol + NH<sub>3</sub> + 2-oxobutanoate (overall reaction); (1a) L-methionine = methanethiol + 2-aminobut-2-enoate; (1b) 2-aminobut-2-enoate = 2-iminobutanoate (spontaneous); (1c) 2-iminobutanoate + H<sub>2</sub>O = 2-oxobutanoate + 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.