

## clavamate synthase

Cat. No. EXWM-0638

Lot. No. (See product label)

### Introduction

#### Description

Contains nonheme iron. Catalyses three separate oxidative reactions in the pathway for the biosynthesis of the  $\beta$ -lactamase inhibitor clavulanate in *Streptomyces clavuligerus*. The first step (hydroxylation) is separated from the latter two (oxidative cyclization and desaturation) by the action of EC 3.5.3.22, proclavamate amidinohydrolase. The three reactions are all catalysed at the same nonheme iron site.

#### Synonyms

clavamate synthase 2; clavaminic acid synthase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 1.14.11.21

#### CAS No.

122799-56-8

#### Reaction

(1) deoxyamidinoproclavamate + 2-oxoglutarate + O<sub>2</sub> = amidinoproclavamate + succinate + CO<sub>2</sub>; (2) proclavamate + 2-oxoglutarate + O<sub>2</sub> = dihydroclavamate + succinate + CO<sub>2</sub> + H<sub>2</sub>O; (3) dihydroclavamate + 2-oxoglutarate + O<sub>2</sub> = clavamate + succinate + CO<sub>2</sub> + H<sub>2</sub>O

#### 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.