Creative Enzymes®

choline oxidase

Cat. No. EXWM-0399

Lot. No. (See product label)

Introduction

Description	A flavoprotein (FAD). In many bacteria, plants and animals, the osmoprotectant betaine is synthesized using different enzymes to catalyse the conversion of (1) choline into betaine aldehyde and (2) betaine aldehyde into betaine. In plants, the first reaction is catalysed by EC 1.14.15.7, choline monooxygenase, whereas in animals and many bacteria, it is catalysed by either membrane-bound choline dehydrogenase (EC 1.1.99.1) or soluble choline oxidase (EC 1.1.3.17). The enzyme involved in the second step, EC 1.2.1.8, betaine-aldehyde dehydrogenase, appears to be the same in those plants, animals and bacteria that use two separate enzymes.

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.1.3.17
CAS No.	9028-67-5
Reaction	choline + 2 O2 + H2O = betaine + 2 H2O2 (overall reaction); (1a) choline + O2 = betaine aldehyde + H2O2; (1b) betaine aldehyde + O2 + H2O = betaine + H2O2
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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.