Creative Enzymes®

2-oxoglutarate/L-arginine monooxygenase/decarboxylase (succinate-forming)

Cat. No. EXWM-0652

Lot. No. (See product label)

Introduction

Description	This is one of two simultaneous reactions catalysed by the enzyme, which is responsible for ethylene production in bacteria of the Pseudomonas syringae group.In the other reaction [EC 1.13.12.19, 2-oxoglutarate dioxygenase (ethylene-forming)] the enzyme catalyses the dioxygenation of 2-oxoglutarate forming ethylene and three molecules of carbon dioxide.The enzyme catalyses two cycles of the ethylene-forming reaction for each cycle of the succinate-forming reaction, so that the stoichiometry of the products ethylene and succinate is 2:1.
Synonyms	ethylene-forming enzyme; EFE

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.11.34
Reaction	2-oxoglutarate + L-arginine + O2 = succinate + CO2 + guanidine + (S)-1-pyrroline-5-carboxylate + H2O (overall reaction); (1a) 2-oxoglutarate + L-arginine + O2 = succinate + CO2 + L-hydroxyarginine; (1b) L-hydroxyarginine = guanidine + (S)-1-pyrroline-5-carboxylate + H2O
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 ℃.