

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.