

epi-isozizaene 5-monooxygenase

Cat. No. EXWM-0705

Lot. No. (See product label)

Introduction

Description

This cytochrome-P-450 enzyme, from the soil-dwelling bacterium *Streptomyces coelicolor* A3(2), catalyses two sequential allylic oxidation reactions. The substrate epi-isozizaene, which is formed by the action of EC 4.2.3.37, epi-isozizaene synthase, is first oxidized to yield the epimeric intermediates (5R)-albaflavenol and (5S)-albaflavenol, which can be further oxidized to yield the sesquiterpenoid antibiotic albaflavenone.

Synonyms

CYP170A1

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.13.106

CAS No.

1207718-51-1

Reaction

(+)-epi-isozizaene + 2 NADPH + 2 H⁺ + 2 O₂ = albaflavenone + 2 NADP⁺ + 3 H₂O (overall reaction); (1a) (+)-epi-isozizaene + NADPH + H⁺ + O₂ = (5S)-albaflavenol + NADP⁺ + H₂O; (1b) (5S)-albaflavenol + NADPH + H⁺ + O₂ = albaflavenone + NADP⁺ + 2 H₂O; (2a) (+)-epi-isozizaene + NADPH + H⁺ + O₂ = (5R)-albaflavenol + NADP⁺ + H₂O; (2b) (5R)-albaflavenol + NADPH + H⁺ + O₂ = albaflavenone + NADP⁺ + 2 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.