Creative Enzymes®

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