

abieta-7,13-dien-18-ol hydroxylase

Cat. No. EXWM-0708

Lot. No. (See product label)

Introduction

Description

A heme-thiolate protein (P-450). This enzyme catalyses a step in the pathway of abietic acid biosynthesis. The activity has been demonstrated in cell-free stem extracts of *Abies grandis* (grand fir) and *Pinus contorta* (lodgepole pine), and the gene encoding the enzyme has been identified in *Pinus taeda* (loblolly pine). The recombinant enzyme catalyses the oxidation of multiple diterpene alcohol and aldehydes, including levopimaradienol, isopimara-7,15-dienol, isopimara-7,15-dienal, dehydroabietadienol and dehydroabietadienal. It is not able to oxidize abietadiene.

Synonyms

CYP720B1; PtAO; abietadienol hydroxylase (ambiguous)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.13.109

Reaction

abieta-7,13-dien-18-ol + NADPH + H⁺ + O₂ = abieta-7,13-dien-18-al + NADP⁺ + 2 H₂O (overall reaction); (1a) abieta-7,13-dien-18-ol + NADPH + H⁺ + O₂ = abieta-7,13-dien-18,18-diol + NADP⁺ + H₂O; (1b) abieta-7,13-dien-18,18-diol = abieta-7,13-dien-18-al + H₂O (spontaneous)

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.