

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 $\text{abieta-7,13-dien-18-ol} + \text{NADPH} + \text{H}^+ + \text{O}_2 = \text{abieta-7,13-dien-18-al} + \text{NADP}^+ + 2 \text{H}_2\text{O}$ (overall reaction);
(1a) $\text{abieta-7,13-dien-18-ol} + \text{NADPH} + \text{H}^+ + \text{O}_2 = \text{abieta-7,13-dien-18,18-diol} + \text{NADP}^+ + \text{H}_2\text{O}$; (1b)
 $\text{abieta-7,13-dien-18,18-diol} = \text{abieta-7,13-dien-18-al} + \text{H}_2\text{O}$ (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.