

fatty-acid peroxygenase

Cat. No. EXWM-0515

Lot. No. (See product label)

Introduction

Description

A cytosolic heme-thiolate protein with sequence homology to P-450 monooxygenases. Unlike the latter, it needs neither NAD(P)H, dioxygen nor specific reductases for function. Enzymes of this type are produced by bacteria (e.g. *Sphingomonas paucimobilis*, *Bacillus subtilis*). Catalytic turnover rates are high compared with those of monooxygenation reactions as well as peroxide shunt reactions catalysed by the common P-450s. A model substrate is myristate, but other saturated and unsaturated fatty acids are also hydroxylated. Oxidizes the peroxidase substrate 3,3',5,5'-tetramethylbenzidine (TMB) and peroxygenates aromatic substrates in a fatty-acid-dependent reaction.

Synonyms

fatty acid hydroxylase (ambiguous); P450 peroxygenase; CYP152A1; P450BS; P450SP α

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.11.2.4

Reaction

fatty acid + H₂O₂ = 3- or 2-hydroxy fatty acid + 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.