

aldehyde oxygenase (deformylating)

Cat. No. EXWM-4937

Lot. No. (See product label)

Introduction

Description

Contains a diiron center. Involved in the biosynthesis of alkanes. The enzyme from the cyanobacterium *Nostoc punctiforme* PCC 73102 is only active in vitro in the presence of ferredoxin, ferredoxin reductase and NADPH, and produces mostly C15 and C17 alkanes. The enzyme from pea (*Pisum sativum*) produces alkanes of chain length C18 to C32 and is inhibited by metal-chelating agents. The substrate for this enzyme is formed by EC 1.2.1.80, acyl-[acyl-carrier protein] reductase.

Synonyms

decarbonylase; aldehyde decarbonylase; octadecanal decarbonylase; octadecanal alkane-lyase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 4.1.99.5

CAS No.

94185-90-7

Reaction

a long-chain aldehyde + O₂ + 2 NADPH + 2 H⁺ = an alkane + formate + H₂O + 2 NADP⁺

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.