Creative Enzymes®

acyl-lipid ω-3 desaturase (cytochrome b5)

Cat. No. EXWM-0988

Lot. No. (See product label)

Introduction

Description	This microsomal enzyme introduces a cis double bond three carbons away from the methyl end of a fatty acid incorporated into a glycerolipid. The distance from the carboxylic acid end of the molecule does not have an effect. The plant enzyme acts on carbon 15 of linoleoyl groups incorporated into both the sn-1 and sn-2 positions of the glycerol backbone of phosphatidylcholine and other phospholipids, converting them into α-linolenoyl groups. The enzyme from the fungus Mortierella alpina acts on γ-linolenoyl and arachidonoyl groups, converting them into stearidonoyl and icosapentaenoyl groups, respectively. cf. EC 1.14.19.35, acyl-lipid ω-3 desaturase (ferredoxin).
Synonyms	FAD3

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.19.25
Reaction	a linoleoyl-[glycerolipid] + 2 ferrocytochrome b5 + O2 + 2 H+ = an α-linolenoyl-[glycerolipid] + ferricytochrome b5 + 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 ℃.