

acyl-CoA 11-(Z)-desaturase

Cat. No. EXWM-1013

Lot. No. (See product label)

Introduction

Description

The enzyme introduces a cis double bond at position C-11 of saturated fatty acyl-CoAs. In moths the enzyme participates in the biosynthesis of their sex pheromones. The enzyme from the marine microalga *Thalassiosira pseudonana* is specific for palmitoyl-CoA (16:0), that from the leafroller moth *Choristoneura rosaceana* desaturates myristoyl-CoA (14:0), while that from the moth *Spodoptera littoralis* accepts both substrates. The enzyme contains three histidine boxes that are conserved in all desaturases. It is membrane-bound, and contains a cytochrome b5-like domain at the N-terminus that serves as the electron donor for the active site of the desaturase.

Synonyms

$\Delta 11$ desaturase; fatty acid $\Delta 11$ -desaturase; TpDESN; Cro-PG; $\Delta 11$ fatty acid desaturase; Z/E11-desaturase; $\Delta 11$ -palmitoyl-CoA desaturase; acyl-CoA,hydrogen donor:oxygen $\Delta 11$ -oxidoreductase; $\Delta 11$ -fatty-acid desaturase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.19.5

Reaction

an acyl-CoA + 2 ferrocycytochrome b5 + O₂ + 2 H⁺ = an (11Z)-enoyl-CoA + 2 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.