Creative Enzymes®

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	Δ11 desaturase; fatty acid Δ11-desaturase; TpDESN; Cro-PG; Δ11 fatty acid desaturase; Z/E11-desaturase; Δ11-palmitoyl-CoA desaturase; acyl-CoA,hydrogen donor:oxygen Δ11-oxidoreductase; Δ11-fatty-acid desaturase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.19.5
Reaction	an acyl-CoA + 2 ferrocytochrome 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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.