

## 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 ferrocytochrome b5 + O<sub>2</sub> + 2 H<sup>+</sup> = an (11Z)-enoyl-CoA + 2 ferricytochrome b5 + 2 H<sub>2</sub>O

**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.