

## acyl-CoA (9+3)-desaturase

Cat. No. EXWM-1014

Lot. No. (See product label)

### Introduction

#### Description

This microsomal enzyme introduces a cis double bond at position 12 of fatty-acyl-CoAs that contain a cis double bond at position 9. When acting on 19:1 $\Delta$ 10 fatty acyl-CoA the enzyme from the pathogenic protozoan *Trypanosoma brucei* introduces the new double bond at position 13, indicating that the new double bond is introduced three carbons from the existing cis double bond, towards the methyl-end of the fatty acid. Requires cytochrome b5 as the electron donor.

#### Synonyms

oleoyl-CoA 12-desaturase;  $\Delta$ 12 fatty acid desaturase;  $\Delta$ 12( $\omega$ 6)-desaturase; oleoyl-CoA  $\Delta$ 12 desaturase;  $\Delta$ 12 desaturase;  $\Delta$ 12-desaturase;  $\Delta$ 12-fatty-acid desaturase; acyl-CoA,hydrogen donor:oxygen  $\Delta$ 12-oxidoreductase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 1.14.19.6

#### Reaction

(1) oleoyl-CoA + 2 ferrocytochrome b5 + O<sub>2</sub> + 2 H<sup>+</sup> = linoleoyl-CoA + 2 ferricytochrome b5 + 2 H<sub>2</sub>O; (2) palmitoleoyl-CoA + 2 ferrocytochrome b5 + O<sub>2</sub> + 2 H<sup>+</sup> = (9Z,12Z)-hexadeca-9,12-dienoyl-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.