

## acyl-[acyl-carrier-protein] 6-desaturase

Cat. No. EXWM-0989

Lot. No. (See product label)

### Introduction

#### Description

The enzyme, characterized from the endosperm of the plant *Thunbergia alata* (black-eyed Susan vine), introduces a cis double bond at carbon 6 of several saturated acyl-[acp]s. It is most active with palmitoyl-[acp] (16:0), but can also act on myristoyl-[acp] (14:0) and stearoyl-[acp] (18:0). The position of the double bond is determined by its distance from the carboxyl end of the fatty acid.

#### Synonyms

DELTA6 palmitoyl-ACP desaturase; DELTA6 16:0-ACP desaturase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 1.14.19.26

#### Reaction

palmitoyl-[acyl-carrier protein] + 2 reduced ferredoxin [iron-sulfur] cluster + O<sub>2</sub> + 2 H<sup>+</sup> = (6Z)-hexadec-6-enoyl-[acyl-carrier protein] + 2 oxidized ferredoxin [iron-sulfur] cluster + 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.