Creative Enzymes®

# acyl-lipid (9+3)-(E)-desaturase

*Cat. No. EXWM-0998*

*Lot. No.* (See product label)

## Introduction

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| **Description** | The enzymes from the plants Dimorphotheca sinuata (African daisy) and Vernicia fordii (tung oil tree) insert a trans double bond in position C-12 of oleate and palmitoleate incorporated into glycerolipids. The enzyme introduces the new double bond at a position three carbons away from an existing double bond at position 9, towards the methyl end of the fatty acid. The enzyme from tung oil tree also possesses the activity of EC 1.14.19.33, Δ12 acyl-lipid conjugase. |
| **Synonyms** | acyl-lipid 12-(E)-desaturase; DsFAD2-1; FADX |

## Product Information

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| **Form** | Liquid or lyophilized powder |
| **EC Number** | EC 1.14.19.34 |
| **Reaction** | (1) an oleoyl-[glycerolipid] + 2 ferrocytochrome b5 + O2 + 2 H+ = a (9Z,12E)-octadeca-9,12-dienoyl-[glycerolipid] + 2 ferricytochrome b5 + 2 H2O; (2) a palmitoleoyl-[glycerolipid] + 2 ferrocytochrome b5 + O2 + 2 H+ = a (9Z,12E)-hexadeca-9,12-dienoyl-[glycerolipid] + 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

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| **Storage** | Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃. |