# sphingolipid 8-(E)-desaturase

*Cat. No. EXWM-0980*

*Lot. No.* (See product label)

## Introduction

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| **Description** | The enzyme, characterized from the yeasts Kluyveromyces lactis and Candida albicans and from the diatom Thalassiosira pseudonana, introduces a trans double bond at the 8-position of sphingoid bases in sphingolipids. The enzyme determines the position of the double bond by its distance from the alcohol end of the sphingoid base, and contains a cytochrome b5 domain that acts as the direct electron donor to the active site of the desaturase. The homologous enzymes from higher plants, EC 1.14.19.29, sphingolipid 8-(E/Z)-desaturase, act on phytosphinganine (4-hydroxysphinganine) and produces a mixture of trans and cis isomers. |
| **Synonyms** | 8-sphingolipid desaturase (ambiguous); 8 fatty acid desaturase (ambiguous); DELTA8-sphingolipid desaturase (ambiguous) |

## Product Information

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| **Form** | Liquid or lyophilized powder |
| **EC Number** | EC 1.14.19.18 |
| **Reaction** | a (4E)-sphing-4-enine ceramide + 2 ferrocytochrome b5 + O2 + 2 H+ = a (4E,8E)-sphing-4,8-dienine ceramide + 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 ℃. |