Creative Enzymes®

sphingolipid 8-(E)-desaturase

Cat. No. EXWM-0980

Lot. No. (See product label)

Introduction

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

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

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