Creative Enzymes®

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 19:1Δ10 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; Δ12 fatty acid desaturase; Δ12(ω6)-desaturase; oleoyl-CoA Δ12 desaturase; Δ12 desaturase; Δ12-desaturase; Δ12-fatty-acid desaturase; acyl-CoA,hydrogen donor:oxygen Δ12-oxidoreductase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.14.19.6

Reaction (1) oleoyl-CoA + 2 ferrocytochrome b5 + O2 + 2 H+ = linoleoyl-CoA + 2 ferricytochrome b5 + 2 H2O; (2) palmitoleoyl-CoA + 2 ferrocytochrome b5 + O2 + 2 H+ = (9Z,12Z)-hexadeca-9,12-dienoyl-CoA + 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 ℃.