Creative Enzymes®

fatty-acyl-CoA synthase

Cat. No. EXWM-2267

Lot. No. (See product label)

Introduction

Description	The enzyme from yeasts (Ascomycota and Basidiomycota) is a multi-functional protein complex composed of two subunits. One subunit catalyses the reactions EC 1.1.1.100, 3-oxoacyl-[acyl-carrier-protein] reductase and EC 2.3.1.41, 3-oxoacyl-[acyl-carrier-protein] synthase, while the other subunit catalyses the reactions of EC 2.3.1.38, [acyl-carrier-protein] S-acetyltransferase, EC 2.3.1.39, [acyl-carrier-protein] S-malonyltransferase, EC 4.2.1.59, 3-hydroxypalmitoyl-[acyl-carrier-protein] dehydratase, EC 1.3.1.10, enoyl-[acyl-carrier-protein] reductase (NADPH, Si-specific) and EC 1.1.1.279, (R)-3-hydroxyacid ester dehydrogenase. The enzyme differs from the animal enzyme (EC 2.3.1.85) in that the enoyl reductase domain requires FMN as a cofactor, and the ultimate product is an acyl-CoA (usually palmitoyl-CoA) instead of a free fatty acid.
Synonyms	yeast fatty acid synthase; FAS1 (gene name); FAS2 (gene name)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.3.1.86
CAS No.	94219-29-1
Reaction	acetyl-CoA + n malonyl-CoA + 2n NADPH + 4n H+ = long-chain-acyl-CoA + n CoA + n CO2 + 2n NADP+
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 ℃.