

squalene synthase

Cat. No. EXWM-2758

Lot. No. (See product label)

Introduction

Description

This microsomal enzyme catalyses the first committed step in the biosynthesis of sterols. The enzyme from yeast requires either Mg^{2+} or Mn^{2+} for activity. In the absence of NAD(P)H, presqualene diphosphate (PSPP) is accumulated. When NAD(P)H is present, presqualene diphosphate does not dissociate from the enzyme during the synthesis of squalene from farnesyl diphosphate (FPP). High concentrations of FPP inhibit the production of squalene but not of PSPP.

Synonyms

farnesyltransferase; presqualene-diphosphate synthase; presqualene synthase; squalene synthetase; farnesyl-diphosphate farnesyltransferase; SQS

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.5.1.21

CAS No.

9077-14-9

Reaction

$2 (2E,6E)\text{-farnesyl diphosphate} + \text{NAD(P)H} + \text{H}^+ = \text{squalene} + 2 \text{ diphosphate} + \text{NAD(P)}^+$ (overall reaction); (1a) $2 (2E,6E)\text{-farnesyl diphosphate} = \text{diphosphate} + \text{presqualene diphosphate}$; (1b) $\text{presqualene diphosphate} + \text{NAD(P)H} + \text{H}^+ = \text{squalene} + \text{diphosphate} + \text{NAD(P)}^+$

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.