

narbonolide synthase

Cat. No. EXWM-2189

Lot. No. (See product label)

Introduction

Description

The product, narbonolide, contains a 14-membered ring and is an intermediate in the biosynthesis of narbomycin and pikromycin in the bacterium *Streptomyces venezuelae*. The enzyme also produces 10-deoxymethynolide (see EC 2.3.1.239, 10-deoxymethynolide synthase). The enzyme has 29 active sites arranged in four polypeptides (pikAI - pikAIV) with a loading domain, six extension modules and a terminal thioesterase domain. Each extension module contains a ketosynthase (KS), keto reductase (KR), an acyltransferase (AT) and an acyl-carrier protein (ACP). Not all active sites are used in the biosynthesis.

Synonyms

pikromycin PKS

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.3.1.240

Reaction

$\text{malonyl-CoA} + 6 (2S)\text{-methylmalonyl-CoA} + 5 \text{ NADPH} + 5 \text{ H}^+ = \text{narbonolide} + 7 \text{ CoA} + 7 \text{ CO}_2 + 5 \text{ NADP}^+ + 2 \text{ H}_2\text{O}$

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.