

tetracenomycin A2 monooxygenase-dioxygenase

Cat. No. EXWM-0802

Lot. No. (See product label)

Introduction

Description

Isolated from the bacterium *Streptomyces glaucescens*. The enzyme was also isolated from the bacterium *Streptomyces olivaceus*, where it acts on 8-demethyltetracenomycin A2 (tetracenomycin B2) as part of elloramycin biosynthesis. The reaction involves a monooxygenase reaction which is followed by a dioxygenase reaction giving a gem-diol and an epoxide. Water opens the epoxide giving two hydroxy groups. The gem-diol eliminates water to give a ketone which is then reduced to a hydroxy group.

Synonyms

TcmG; ElmG; tetracenomycin A2,NAD(P)H:O₂ oxidoreductase (tetracenomycin C forming)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.13.200

Reaction

tetracenomycin A2 + 2 O₂ + 2 NAD(P)H + 2 H⁺ = tetracenomycin C + 2 NAD(P)⁺ + 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.