

2,5-diketocamphane 1,2-monooxygenase

Cat. No. EXWM-0762

Lot. No. (See product label)

Introduction

Description

A flavoprotein (FMN) which requires Fe²⁺. A Baeyer-Villiger monooxygenase isolated from camphor-grown strains of *Pseudomonas putida* and encoded on the cam plasmid. Involved in the degradation of (+)-camphor. Requires a dedicated NADH-FMN reductase [cf. EC 1.5.1.42, FMN reductase (NADH)]. Can accept several bicyclic ketones including (+)- and (-)-camphor and adamantanone. The product spontaneously converts to [(1R)-2,2,3-trimethyl-5-oxocyclopent-3-enyl]acetate.

Synonyms

2,5-diketocamphane lactonizing enzyme; ketolactonase I (ambiguous); 2,5-diketocamphane 1,2-monooxygenase oxygenating component; 2,5-DKCMO; camP (gene name); camphor 1,2-monooxygenase; camphor ketolactonase I

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.13.162

Reaction

(+)-bornane-2,5-dione + O₂ + NADH + H⁺ = (+)-5-oxo-1,2-campholide + NAD⁺ + 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.