

biphenyl 2,3-dioxygenase

Cat. No. EXWM-0687

Lot. No. (See product label)

Introduction

Description

Requires Fe²⁺. The enzyme from Burkholderia fungorum LB400 (previously Pseudomonas sp.) is part of a multicomponent system composed of an NADH:ferredoxin oxidoreductase (FAD cofactor), a [2Fe-2S] Rieske-type ferredoxin, and a terminal oxygenase that contains a [2Fe-2S] Rieske-type iron-sulfur cluster and a catalytic mononuclear nonheme iron centre. Chlorine-substituted biphenyls can also act as substrates. Similar to the three-component enzyme systems EC 1.14.12.3 (benzene 1,2-dioxygenase) and EC 1.14.12.11 (toluene dioxygenase).

Synonyms

biphenyl dioxygenase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.12.18

CAS No.

103289-55-0

Reaction

biphenyl + NADH + H⁺ + O₂ = (1S,2R)-3-phenylcyclohexa-3,5-diene-1,2-diol + NAD⁺

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.