

heme oxygenase (biliverdin-producing, ferredoxin)

Cat. No. EXWM-0945

Lot. No. (See product label)

Introduction

Description

The enzyme, found in plants, algae, and cyanobacteria, participates in the biosynthesis of phytochromobilin and phytyobilins. The terminal oxygen atoms that are incorporated into the carbonyl groups of pyrrole rings A and B of biliverdin are derived from two separate oxygen molecules. The third oxygen molecule provides the oxygen atom that converts the α -carbon to CO. Unlike this enzyme, which uses ferredoxin as its electron donor, the electron source for the related mammalian enzyme (EC 1.14.14.18) is EC 1.6.2.4, NADPH-hemoprotein reductase.

Synonyms

HO1 (gene name); HY1 (gene name); HO3 (gene name); HO4 (gene name); pbsA1 (gene name)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.15.20

Reaction

protoheme + 6 reduced ferredoxin [iron-sulfur] cluster + 3 O₂ + 6 H⁺ = biliverdin + Fe²⁺ + CO + 6 oxidized ferredoxin [iron-sulfur] cluster + 3 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.