Creative Enzymes®

dichlorochromopyrrolate synthase

Cat. No. EXWM-1261

Lot. No. (See product label)

Introduction

Description	This enzyme catalyses a step in the biosynthesis of rebeccamycin, an indolocarbazole alkaloid produced by the bacterium Lechevalieria aerocolonigenes. The enzyme is a dimeric heme-protein oxidase that catalyses the oxidative dimerization of two L-tryptophan-derived molecules to form dichlorochromopyrrolic acid, the precursor for the fused six-ring indolocarbazole scaffold of rebeccamycin. Contains one molecule of heme b per monomer, as well as non-heme iron that is not part of an iron-sulfur center. In vivo the enzyme uses hydrogen peroxide, formed by the enzyme upstream in the biosynthetic pathway (EC 1.4.3.23, 7-chloro-L-tryptophan oxidase) as the electron acceptor. However, the enzyme is also able to catalyse the reaction using molecular oxygen.
Synonyms	RebD; chromopyrrolic acid synthase; chromopyrrolate synthase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.21.98.2
Reaction	2 3-(7-chloroindol-3-yl)-2-iminopropanoate + H2O2 = dichlorochromopyrrolate + NH3 + 2 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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.