Creative Enzymes®

chlorophyllide-a oxygenase

Cat. No. EXWM-0723

Lot. No. (See product label)

Introduction

Description	Chlorophyll b is required for the assembly of stable light-harvesting complexes (LHCs) in the chloroplast of green algae, cyanobacteria and plants. Contains a mononuclear iron centre. The enzyme catalyses two successive hydroxylations at the 7-methyl group of chlorophyllide a. The second step yields the aldehyde hydrate, which loses H2O spontaneously to form chlorophyllide b. Chlorophyll a and protochlorophyllide a are not substrates.
Synonyms	chlorophyllide a oxygenase; chlorophyll-b synthase; CAO

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.13.122
CAS No.	216503-73-0
Reaction	chlorophyllide a + 2 O2 + 2 NADPH + 2 H+ = chlorophyllide b + 3 H2O + 2NADP+ (overall reaction); (1a) chlorophyllide a + O2 + NADPH + H+ = 71-hydroxychlorophyllide a + H2O + NADP+; (1b) 71-hydroxychlorophyllide a + O2 + NADPH + H+ = chlorophyllide b + 2 H2O + NADP+
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 ℃.