

magnesium-protoporphyrin IX monomethyl ester (oxidative) cyclase

Cat. No. EXWM-0889

Lot. No. (See product label)

Introduction

Description Requires Fe(II) for activity. The cyclase activity in *Chlamydomonas reinhardtii* is associated exclusively with the membranes, whereas that from cucumber cotyledons requires both membrane and soluble fractions for activity.

Synonyms Mg-protoporphyrin IX monomethyl ester (oxidative) cyclase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.14.13.81

CAS No. 92353-62-3

Reaction magnesium-protoporphyrin IX 13-monomethyl ester + 3 NADPH + 3 H⁺ + 3 O₂ = divinylprotochlorophyllide + 3 NADP⁺ + 5 H₂O (overall reaction); (1a) magnesium-protoporphyrin IX 13-monomethyl ester + NADPH + H⁺ + O₂ = 131-hydroxy-magnesium-protoporphyrin IX 13-monomethyl ester + NADP⁺ + H₂O; (1b) 131-hydroxy-magnesium-protoporphyrin IX 13-monomethyl ester + NADPH + H⁺ + O₂ = 131-oxo-magnesium-protoporphyrin IX 13-monomethyl ester + NADP⁺ + 2 H₂O; (1c) 131-oxo-magnesium-protoporphyrin IX 13-monomethyl ester + NADPH + H⁺ + O₂ = divinylprotochlorophyllide + NADP⁺ + 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.