Creative Enzymes®

malonyl-CoA reductase (malonate semialdehyde-forming)

Cat. No. EXWM-1177

Lot. No. (See product label)

Introduction

Description	Requires Mg2+. Catalyses the reduction of malonyl-CoA to malonate semialdehyde, a key step in the 3-hydroxypropanoate and the 3-hydroxypropanoate/4-hydroxybutanoate cycles, autotrophic CO2 fixation pathways found in some green non-sulfur phototrophic bacteria and some thermoacidophilic archaea, respectively. The enzyme from Sulfolobus tokodaii has been purified, and found to contain one RNA molecule per two subunits. The enzyme from Chloroflexus aurantiacus is bifunctional, and also catalyses the next reaction in the pathway, EC 1.1.1.298 [3-hydroxypropionate dehydrogenase (NADP+)].
Synonyms	NADP-dependent malonyl CoA reductase; malonyl CoA reductase (NADP); malonyl CoA reductase (malonate semialdehyde-forming)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.2.1.75
Reaction	malonate semialdehyde + CoA + NADP+ = malonyl-CoA + NADPH + H+
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 ℃.