

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.