

## 3-hydroxypropionate dehydrogenase (NADP+)

Cat. No. EXWM-0207

Lot. No. (See product label)

### Introduction

#### Description

Catalyses the reduction of malonate semialdehyde to 3-hydroxypropanoate, a key step in the 3-hydroxypropanoate and the 3-hydroxypropanoate/4-hydroxybutanoate cycles, autotrophic CO<sub>2</sub> fixation pathways found in some green non-sulfur phototrophic bacteria and archaea, respectively. The enzyme from *Chloroflexus aurantiacus* is bifunctional, and also catalyses the upstream reaction in the pathway, EC 1.2.1.75. Different from EC 1.1.1.59 [3-hydroxypropionate dehydrogenase (NAD<sup>+</sup>)] by cofactor preference.

#### Synonyms

3-hydroxypropanoate dehydrogenase (NADP<sup>+</sup>); 3-hydroxypropionate:NADP<sup>+</sup> oxidoreductase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 1.1.1.298

#### Reaction

3-hydroxypropanoate + NADP<sup>+</sup> = malonate semialdehyde + NADPH + H<sup>+</sup>

#### 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.