

L-2-hydroxycarboxylate dehydrogenase [NAD(P)+]

Cat. No. EXWM-0293

Lot. No. (See product label)

Introduction

Description

The enzyme from the archaeon *Methanocaldococcus jannaschii* catalyses the reversible oxidation of (2R)-3-sulfolactate and (S)-malate to 3-sulfo pyruvate and oxaloacetate, respectively (note that (2R)-3-sulfolactate has the same stereochemical configuration as (2S)-2-hydroxycarboxylates). The enzyme can use both NADH and NADPH, although activity is higher with NADPH. The oxidation of (2R)-3-sulfolactate was observed only in the presence of NADP⁺. The same organism also possesses an NAD⁺-specific enzyme with similar activity, cf. EC 1.1.1.337, L-2-hydroxycarboxylate dehydrogenase (NAD⁺).

Synonyms

MdhII; lactate/malate dehydrogenase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.1.1.375

Reaction

a (2S)-2-hydroxycarboxylate + NAD(P)⁺ = a 2-oxocarboxylate + NAD(P)H + 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.