

1,5-anhydro-D-fructose reductase (1,5-anhydro-D-mannitol-forming)

Cat. No. EXWM-0201

Lot. No. (See product label)

Introduction

Description

This enzyme is present in some but not all *Rhizobium* species and belongs in the GFO/IDH/MocA protein family. This enzyme differs from hepatic 1,5-anhydro-D-fructose reductase, which yields 1,5-anhydro-D-glucitol as the product (see EC 1.1.1.263). In *Sinorhizobium morelense*, the product of the reaction, 1,5-anhydro-D-mannitol, can be further metabolized to D-mannose. The enzyme also reduces 1,5-anhydro-D-erythro-hexo-2,3-diulose and 2-ketoaldoses (called osones), such as D-glucosone (D-arabino-hexos-2-ulose) and 6-deoxy-D-glucosone. It does not reduce common aldoses and ketoses, or non-sugar aldehydes and ketones.

Synonyms

1,5-anhydro-D-fructose reductase (ambiguous); AFR

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.1.1.292

Reaction

1,5-anhydro-D-mannitol + NADP⁺ = 1,5-anhydro-D-fructose + 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.