

mannosylfructose-phosphate synthase

Cat. No. EXWM-2475

Lot. No. (See product label)

Introduction

Description

This enzyme, from the soil proteobacterium and plant pathogen *Agrobacterium tumefaciens* strain C58, requires Mg²⁺ or Mn²⁺ for activity. GDP-mannose can be replaced by ADP-mannose but with a concomitant decrease in activity. The product of this reaction is dephosphorylated by EC 3.1.3.79 (mannosylfructose-phosphate phosphatase) to form the non-reducing disaccharide mannosylfructose, which is the major endogenous osmolyte produced by several α -proteobacteria in response to osmotic stress. The F in the product name is used to indicate that the fructose residue of sucrose carries the substituent.

Synonyms

mannosylfructose-6-phosphate synthase; MFPS

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.4.1.246

CAS No.

92480-04-1 (not distinguished from EC 2.4.1.167)

Reaction

GDP-mannose + D-fructose 6-phosphate = GDP + β -D-fructofuranosyl- α -D-mannopyranoside 6F-phosphate

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.