Creative Enzymes®

Trehalose-6-phosphate hydrolase from Escherichia coli, Recombinant

Cat. No. NATE-1231

Lot. No. (See product label)

Introduction

Description	In enzymology, an alpha,alpha-phosphotrehalase (EC 3.2.1.93) is an enzyme that catalyzes the chemical reaction: alpha,alpha-trehalose 6-phosphate + H2O ↔ D-glucose + D-glucose 6-phosphate. Thus, the two substrates of this enzyme are alpha,alpha'-trehalose 6-phosphate and H2O, whereas its two products are D-glucose and D-glucose 6-phosphate. This enzyme belongs to the family of hydrolases, specifically those glycosidases that hydrolyse O- and S-glycosyl compounds. This enzyme participates in starch and sucrose metabolism.
Synonyms	α,α-Trehalose-6-phosphate phosphoglucohydrolase; α,α-phosphotrehalase; phosphotrehalase; alpha,alpha-trehalose-6-phosphate phosphoglucohydrolase; alpha,alpha-phosphotrehalase

Product Information

Source	Escherichia coli str. K-12 substr. W3110
Form	Supplied in 3.2 M ammonium sulphate
EC Number	EC 3.2.1.93
CAS No.	54576-93-1
Molecular Weight	67657.8 Da
Purity	>95 % as judged by SDS-PAGE
Activity	252.4 U/mg
Concentration	3472.9 U/ml
Optimum pH	~ 6.0
Optimum temperature	> 37°C
Unit Definition	One unit is defined as the amount of enzyme required to release 1µmol of pNP per minute from pNP-α-D-glucopyranoside (5 mM) in 50 mM sodium acetate buffer, pH 6.0, containing 1 mg/mL BSA and 1 M sodium chloride, at 37 °C, and using an extinction coefficient of 18000 M-1cm-1. The enzyme should be diluted in 1 mg/mL BSA.

Usage and Packaging

Preparation Instructions	Agitate vial sufficiently to fully homogenise enzyme precipitate before use.

Storage and Shipping Information

Storage	Store at 4°C (shipped at room temperature)