Creative Enzymes®

β-Phosphoglucomutase from E. coli, Recombinant

Cat. No. NATE-1251

Lot. No. (See product label)

Introduction

Description	Enzymatically converts β-D-glucose-1-phosphate to β-D-glucose-6-phosphate. β-Phosphoglucomutase enzymatically converts β-D-glucose 1-phosphate to β-D-glucose 6-phosphate. It is involved in starch and sucrose metabolism. This enzyme belongs to the family of isomerases, specifically the phosphotransferases (phosphomutases), which transfer phosphate groups within a molecule. This enzyme participates in starch and sucrose metabolism.
Synonyms	β-phosphoglucomutase; β-D-glucose 1,6-phosphomutase; EC 5.4.2.6

Product Information

Species	E. coli
Source	E. coli
Appearance	White lyophilizate
EC Number	EC 5.4.2.6
CAS No.	68651-99-0
Molecular Weight	ca. 34 kDa
Activity	> 20 U/mg lyophilizate
Contaminants	α-amylase < 5.0 x 10^-3% α-glucosidase < 5.0 x 10^-2% NADPH oxidase < 5.0 x 10^-2%
pH Stability	5.0–9.5
Optimum pH	ca. 7.0
Thermal stability	below 45°C
Optimum temperature	40°C
Michaelis Constant	2.3 x 10^-4 M (β-D-glucose-1-phosphate)
Structure	monomer of ca. 25 kDa (SDS-PAGE)
Activators	Mg2+, Mn2+, Co2+, Ni2+
Inhibitors	Hg2+, Zn2+, Cu2+, Cd2+
Stabilizers	Lactose, EDTA
Unit Definition	One unit (U) is defined as the amount of enzyme which converts 1 µmol of β-D-glucose-1-phosphate to β-D-glucose-6-phosphate per min at 37°C and pH 7.0.

Storage and Shipping Information

Storage	at -20°C
Stability	Stability (liquid form) stable at 37°C for at least one week Stability (powder form) stable

Stability	Stability (liquid form) stable at 37°C for at least one week Stability (powder form) stable at 30°C for at lest one month