

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	Mg ²⁺ , Mn ²⁺ , Co ²⁺ , Ni ²⁺
Inhibitors	Hg ²⁺ , Zn ²⁺ , Cu ²⁺ , Cd ²⁺
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

Storage

at 20°C

Stability

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