

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

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