Creative Enzymes®

Native Baker's yeast (S. cerevisiae) Phosphoglucose Isomerase

Cat. No. NATE-0554

Lot. No. (See product label)

Introduction

Description	Phosphoglucose Isomerase (PGI) is an enzyme crucial for the interconversion of D-glucose 6-phosphate and D-fructose 6-phosphate. PGI is responsible for the second step of glycolysis and is involved in glucogenesis. It is highly conserved in bacteria and eukaryotes.
Applications	Isomerization of ketoses to aldoses
Synonyms	Glucose-6-phosphate isomerase; EC 5.3.1.9; phosphohexose isomerase; phosphohexomutase; oxoisomerase; hexosephosphate isomerase; phosphosaccharomutase; phosphoglucoisomerase; phosphohexoisomerase; phosphoglucose isomerase; glucose phosphate isomerase; hexose phosphate isomerase; D-glucose-6-phosphate ketol-isomerase; 9001-41-6; PGI

Product Information

Source	Baker's yeast (S. cerevisiae)
EC Number	EC 5.3.1.9
CAS No.	9001-41-6
Molecular Weight	145 kDa
Activity	350 U/mg at +25°C with F6P as substrate.
Contaminants	< 0.01% F6P-K, GR, 6-PGDH and PGIuM each < 0.2% B-fructosidase.
Optimum pH	7.0-7.6
Inhibitors	Pyridoxal-5’-phosphate
Buffer	Suspension in 3.2 M ammonium sulfate solution, pH approx. 6
Unit Definition	One unit (U) phosphoglucose isomerase will produce 1 mol of glucose-6-phosphate from fructose-6-phosphate in 1 min at +25°C and pH 7.6 (triethanolamine buffer). The above assay produces 1umol of NAD (P)H per umol of glucose-6-phosphate formed.

Storage and Shipping Information

Storage	Stable at +2 to +8°C.