Creative Enzymes®

Native Baker's yeast (S. cerevisiae) 3-Phosphoglyceric Phosphokinase

Cat. No. NATE-0006

Lot. No. (See product label)

Introduction

Description

PhosphoglyceRate kinase (EC 2.7.2.3) (PGK) is an enzyme that catalyzes the reversible transfer of a phosphate group from 1,3-bisphosphoglyceRate (1,3-BPG) to ADP producing 3-phosphoglyceRate (3-PG) and ATP. Like all kinases it is a transferase. PGK is a major enzyme used in glycolysis, in the first ATP-geneRating step of the glycolytic pathway. In gluconeogenesis, the reaction catalyzed by PGK proceeds in the opposite direction, geneRating ADP and 1,3-BPG.

Applications

3-Phosphoglyceric Phosphokinase generates ATP by catalyzing the transfer of a phosphate group from 1,3-diphosphoglycerate to ADP. 3-Phosphoglycerate Phosphokinase is used to study glycolysis and gluconeogenesis. It has also been used to study low molecular weight GTP-binding proteins and mechanisms of inhibition of glyceraldehyde-3-phosphate dehydrogenase. The enzyme has been used in the assay of glyceraldehyde-3-phosphate dehydrogenase.

Synonyms

PGK; 3-PGK; ATP-3-phospho-D-glyceRate-1-phosphotransferase; ATP:D-3-phosphoglyceRate 1-phosphotransferase; 3-phosphoglyceRate kinase; 3-phosphoglyceRate phosphokinase; 3-phosphoglyceric acid kinase; 3-phosphoglyceric acid phosphokinase; 3-phosphoglyceric kinase; glyceRate 3-phosphate kinase; glycerophosphate kinase; phosphoglyceric acid kinase; phosphoglyceric kinase; phosphoglycerokinase; EC 2.7.2.3

Product Information

Source

Baker's yeast (S. cerevisiae)

Form

ammonium sulfate suspension

EC Number

EC 2.7.2.3

CAS No.

9001-83-6

Activity

> 1000 units/mg protein

Unit Definition

One unit will convert 1.0 µmole of 1,3-diphosphoglycerate to 3-phosphoglycerate per min at pH 6.9 at 25°C.

Storage and Shipping Information

Storage

2-8°C