Creative Enzymes®

Native 6-phospho-D-gluconate dehydrogenase from E. coli

Cat. No. NATE-1167

Lot. No. (See product label)

Introduction

Description	In enzymology, a phosphogluconate dehydrogenase (decarboxylating) (EC 1.1.1.44) is an enzyme that catalyzes the chemical reaction:6-phospho-D-gluconate + NADP+↔ D-ribulose 5-phosphate + CO2 + NADPH. Thus, the two substRates of this enzyme are 6-phospho-D-gluconate and NADP+, whereas its 3 products are D-ribulose 5-phosphate, CO2, and NADPH. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with NAD+ or NADP+ as acceptor.
Applications	Determination of D-Gluconate and D-Glucono-δ-lactone in foodstaffs.
Synonyms	6-Phosphogluconic Dehydrogenase; phosphogluconic acid dehydrogenase; 6-phosphogluconic dehydrogenase; 6-phosphogluconic carboxylase; 6-phosphogluconate dehydrogenase (decarboxylating); 6-phospho-D-gluconate dehydrogenase; EC 1.1.1.44; phosphogluconate dehydrogenase; decarboxylating; 9073-95-4

Product Information

Source	E. coli
Form	Suspension in Ammonium Sulphate
EC Number	EC 1.1.1.44
CAS No.	9073-95-4
Activity	> 150 UI/ml, > 45 U/mg
Optimum pH	7.5
Optimum temperature	55 °C
Unit Definition	One Units of 6-phospho-D-gluconate dehydrogenase is defined as the amount of enzyme required to produce one µmole of NADPH from NADP+ in a coupled assay with gluconate kinase.

Storage and Shipping Information

Storage	4°C