

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 foodstuffs.

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