

6-Phosphogluconate dehydrogenase from E. coli, Recombinant

Cat. No. NATE-0796

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.

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

Liquid

EC Number

EC 1.1.1.44

CAS No.

9073-95-4

Molecular Weight

~ 52.5kD

Activity

~ 9 U/mg protein

Unit Definition

One unit is the amount of enzyme required to convert one μmole of 6-phosphogluconic acid to D-ribulose 5-phosphate per min in TEA buffer at pH 7.6 and 25°C.

Storage and Shipping Information

Storage

4°C