Creative Enzymes®

Phosphogluconate dehydrogenase from Human, Recombinant

Cat. No. NATE-1652

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 carboxylase; 6-phosphogluconate dehydrogenase (decarboxylating); 6-phospho-D-gluconate dehydrogenase; EC 1.1.1.44; phosphogluconate dehydrogenase; decarboxylating

Product Information

Species	Human
Source	E. coli
Form	Liquid
Formulation	1 mg/ml solution in 20 mM MES 6.0, 0.1 mM PMSF, 2 mM EDTA and 10% glycerol.
EC Number	EC 1.1.1.44
Molecular Weight	53.3 kDa
Purity	> 90% by SDS-PAGE
Activity	>10 units/mg
Concentration	1 mg/ml
Unit Definition	One unit oxidize 1.0 umole of 6-phospho-D-gluconate to D-ribulose 5-phosphate per minute at pH 8.0 at 25°C, in the presence of ß-NADP.

Storage and Shipping Information

Storage	Store at +4°C for short term (1-2 weeks). For long term storage, aliquot and store at -70°C. Avoid repeated freeze/thaw cycles.