Creative Enzymes®

Leuconostoc mesenteroides Glucose-6-phosphate Dehydrogenase, Recombinant

Cat. No. DIA-323

Lot. No. (See product label)

Introduction

Description	Glucose-6-phosphate dehydrogenase (G6PD or G6PDH) (EC 1.1.1.49) is a cytosolic enzyme that catalyzes the chemical reaction:D-glucose 6-phosphate + NADP+ ↔ 6-phospho-D-glucono-1,5-lactone + NADPH + H+. This enzyme is in the pentose phosphate pathway, a metabolic pathway that supplies reducing energy to cells (such as erythrocytes) by maintaining the level of the co-enzyme nicotinamide adenine dinucleotide phosphate (NADPH).
Applications	Glucose-6-phosphate dehydrogenase is used to test ketose reductase activity in developing maize endosperm.
Synonyms	EC 1.1.1.49; NADP-glucose-6-phosphate dehydrogenase; Zwischenferment; D-glucose 6-phosphate dehydrogenase; glucose 6-phosphate dehydrogenase (NADP); NADP-dependent glucose 6-phosphate dehydrogenase; 6-phosphoglucose dehydrogenase; Entner-Doudoroff enzyme; glucose-6-phosphate 1-dehydrogenase; G6PDH; GPD; glucose-6-phosphate dehydrogenase; 9001-40-5

Product Information

Species	Leuconostoc mesenteroides
Source	E. coli
Form	Type I, Lyophilized powder containing Ficoll and Tris buffer salts; Type II, ammonium sulfate suspension, Supplied in 3.2M ammonium sulfate containing 50mM Tris and 1mM magnesium chloride, pH 7.5.
EC Number	EC 1.1.1.49
CAS No.	9001-40-5
Activity	Type I, 550-1,100 units/mg protein (biuret); Type II, > 550 units/mg protein (biuret).
Unit Definition	One unit will oxidize 1.0 µmole of D-glucose 6-phosphate to 6-phospho-D-gluconate per min in the presence of NAD at pH 7.8 at 30°C.

Storage and Shipping Information

Storage	2-8°C