Creative Enzymes®

Native Bacillus sp. Glucose-6-phosphate dehydrogenase

Cat. No. DIA-143

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	Useful for enzymatic determination of glucose or ATP when coupled with hexokinase
Synonyms	Glucose-6-phosphate dehydrogenase; G6PD; G6PDH; Glucose-6-phosphate dehydrogenase (NADP(+)); EC 1.1.1.49; Glucose-6-phosphate 1-dehydrogenase; Glucose-6-phosphate dehydrogenase; GPD

Product Information

Source	Bacillus sp.
Appearance	White/off white powder
Form	Freeze dried powder
EC Number	EC 1.1.1.49
CAS No.	9001-40-5
Molecular Weight	104 kDa dalton (two subunits of approx. 55 kDa)
Activity	> 200 U/mg
Pathway	Glutathione metabolism; Pentose phosphate pathway; Metabolism of carbohydrates.
Function	glucose-6-phosphate dehydrogenase activity; oxidoreductase activity; binding.

Storage and Shipping Information

Storage	Store in tightly closed containers, desiccated, protected from light, at-20°C.