

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.