

## 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<sup>+</sup> ↔ 6-phospho-D-glucono-1,5-lactone + NADPH + H<sup>+</sup>. 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.