

## 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<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** 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