



Hexokinase
Catalogue No. HEXO-70-1351, 70-1351-01

Origin: Yeast

Specifications:

Appearance: White to off white free flowing powder
 Activity: > 100U/mg powder @ 25°C
 Specific Activity: > 150U/mg protein @ 25°C
 Contaminants: < 0.002% (by activity) Creatine phosphokinase (including AK)
 < 0.002% (by activity) Adenylate kinase (AK)
 < 0.005% (by activity) ATPase
 < 0.005% (by activity) Phosphoglucose isomerase
 < 0.005% (by activity) 6-phosphogluconate dehydrogenase (with NAD as coenzyme)
 < 0.005% (by activity) Glutathione reductase
 < 10 pmoles/unit Glucose

Characteristics:

Molecular weight: 100KDa
 Optimum pH: 8.0-8.4 (0.1M triethanolamine-NaCl buffer)
 Optimum Temp: 48-50°C
 Relative activity:

See Fig.1

See Fig.2

Temperature (°C)	Relative activity	
	G6PDH (yeast)/NADP	G6PDH (<i>Leu. Mes</i>)/NAD
25	1.00	1.00
30	1.29	1.32
37	1.77	1.86

Storage stability: 24 months from date of original QC analysis, desiccated at-20°C



Hexokinase (Catalogue No. 1351)

Fig. 1 Effect of pH on Hexokinase activity

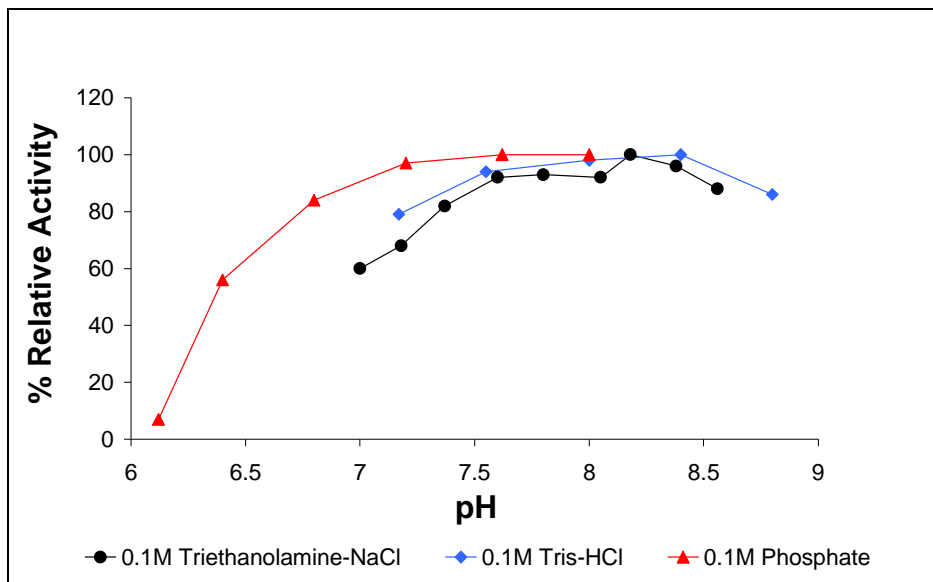
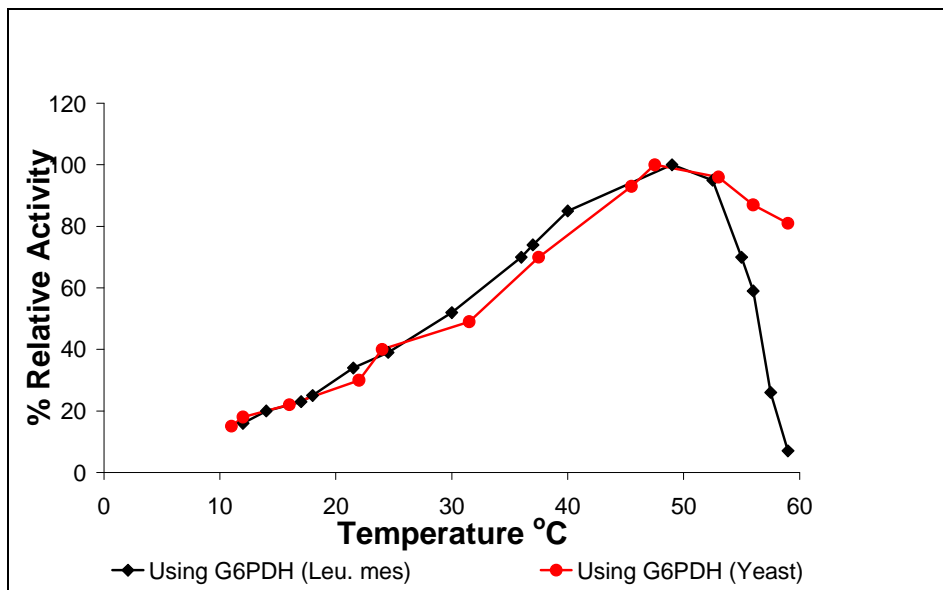


Fig. 2 Effect of Temperature on Hexokinase activity

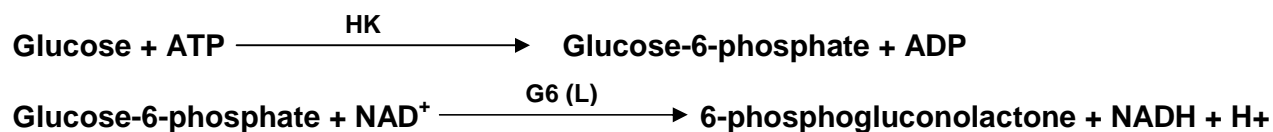




Hexokinase **(Catalogue No. 1351)**

Assay Principle:

Hexokinase catalyses the phosphorylation of glucose by ATP in the following reaction:



The production of NADH may be detected spectrophotometrically by the increase in absorbance observed at 340nm.

Unit Definition:

One unit of Hexokinase is defined as the amount of enzyme that will catalyse the production of 1.0 micromole of Glucose-6-phosphate in 1 minute at 25°C under standard assay method conditions.

(See Assay Method for full details)

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