

Glucose-6-Phosphate Dehydrogenase & Hexokinase



Product	Glucose-6-Phosphate Dehydrogenase (G6PDH)	Hexokinase (HK1)
E.C. number	1.1.1.49	2.7.1.1
Systematic Names	D-glucose-6-phosphate: NADP+ 1-oxidoreductase	ATP: D-hexose 6-phosphotransferase
Assay Principle	$\text{glucose} + \text{ATP} \xrightarrow[\text{Mg}^{2+}]{\text{HK1}} \text{glucose-6-phosphate} + \text{ADP}$ $\text{glucose-6-phosphate} + \text{NAD}^+ \xrightarrow{\text{G6PDH}} \text{6-phosphogluconolactone} + \text{NADH} + \text{H}^+$	
Unit Definition	G6PDH	That amount of enzyme causing the reduction of one micromole of NAD+ per minute at 25°C and pH 7.8
	HK1	That amount of enzyme causing the reduction of one micromole of NAD+ per minute at 30°C and pH 8.2

How can G6PDH and Hexokinase be used?

G6PDH and hexokinase can be used together to detect glucose in a variety of chemistry applications. G6PDH has utility in a range of assays for detection of drugs of abuse, such as opiates, amphetamines and cannabinoids and in identifying G6PD deficiencies.

Why BBI?

- Security of supply - As a primary manufacturer of our reagents we take pride in the control and management of our supply chain, from raw material to finished product
- Proven performance - With over 70 years of experience manufacturing enzymes, our reagents are an established part of many assays in use across the globe today
- Focus on diabetes - Our expanded portfolio of enzymes, antigens, antibodies and reagents support a wide range of tests throughout the patient journey from diagnosis, monitoring and living with diabetes and related conditions



Contact our team to discuss your needs today:
info@bbisolutions.com

Product Overview

Product	Code	Activity	Cross reactivity	Source	Stability	Storage
Glucose-6-Phosphate Dehydrogenase	G6PDH	> 200 U/mg	< 0.5% Hexokinase	<i>E. Coli</i>	6 months from receipt	Desiccated at -15°C or below
			< 0.5% Creatine phosphokinase			
Hexokinase	HK1	> 100 U/mg	< 0.1% ATPase	<i>E. Coli</i>	6 months from receipt	Desiccated at -15°C or below
			< 0.1% G6PDH			
			< 0.1% NADH-oxidase			

Related Products

Product	Code	Activity
Glucose Oxidase	GO3A	270 U/mg
	GO3B3	280 U/mg
Glucose Dehydrogenase	GLD1	> 625 U/mg
	GLD4	> 300 U/mg
Peroxidase	HRP4C	> 250 U/mg



BBI offer many other reagents and grades across a broad range of analytes and disease states, to see our full product offering visit www.bbisolutions.com



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