

Product datasheet

Glucose-6-Phosphate Assay Kit - High Sensitivity (Fluorometric) ab107923

[3 Images](#)

Overview

Product name	Glucose-6-Phosphate Assay Kit - High Sensitivity (Fluorometric)
Detection method	Fluorescent
Sample type	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts
Assay type	Quantitative
Sensitivity	> 1 μ M
Range	1 μ M - 500 μ M
Assay time	0h 20m
Product overview	<p>Abcam's Glucose-6-Phosphate Assay Kit - High Sensitivity (Fluorometric) (ab107923) is a simple, sensitive and rapid means of quantifying glucose-6-Phosphate (G6P) in a variety of samples. In the assay, glucose-6-phosphate is oxidized with the generation of a product that converts a nearly colorless probe to an intensely fluorescent product (Ex/Em 535/587 nm). This assay can detect G6P in the range of 10 to 500 pmoles which is equivalent to the range of 1-500 μM in the original sample assuming a dilution of 5X during processing. This Glucose-6-Phosphate Assay Kit - High Sensitivity is more sensitive than our colorimetric assay, Glucose-6-Phosphate Assay Kit (ab83426).</p> <p>Visit our FAQs page for tips and troubleshooting.</p>
Notes	<p>Glucose-6-phosphate (G6P) is a key intermediate for glucose transport into cells which then enters either metabolic pathways or storage. G6P can enter the glycolytic pathway, the pentose phosphate shunt or be stored as glycogen or starch. G6P is utilized by its dehydrogenase to generate reducing equivalents in the form of NAD(P)H. This is particularly important in red blood cells where a G6PDH deficiency leads to hemolytic anemia.</p>
Tested applications	Suitable for: Functional Studies
Platform	Microplate

Properties

Storage instructions	Store at -20°C. Please refer to protocols.
Storage buffer	Preservative: None Constituents: DMSO

Components	Identifier	100 tests
Glucose 6 phosphate assay buffer	WM	1 x 25ml
Glucose 6 phosphate Enzyme Mix (lyophilized)	Green	1 vial
Glucose 6 phosphate Standard (10 μ mol; lyophilized)	Yellow	1 vial
Glucose 6 phosphate Substrate Mix (lyophilized)	Red	1 vial
Probe (in DMSO)	Blue	1 x 0.4ml

Relevance

Glucose 6 phosphate (G6P) is a key sugar intermediate for glucose to get into cells, and then enter either metabolic pathways or storage. G6P can enter the glycolytic pathway, the pentose phosphate shunt or be stored as glycogen or starch. G6P is utilized by its dehydrogenase to generate reducing equivalents in the form of NADPH. This is particularly important in red blood cells where a G6PDH deficiency leads to hemolytic anemia.

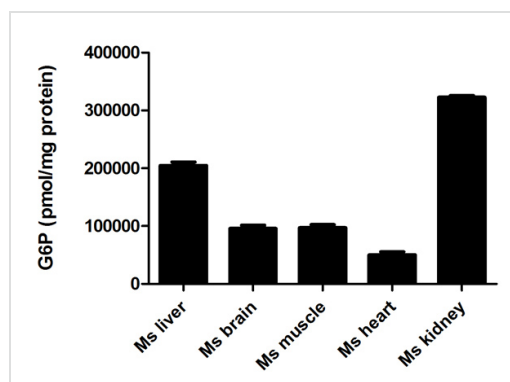
Applications

Our [Abpromise guarantee](#) covers the use of **ab107923** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

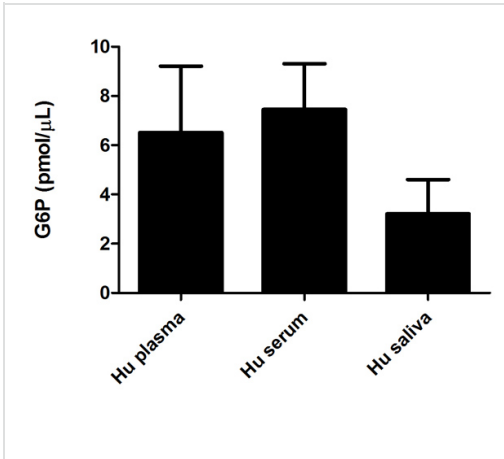
Application	Abreviews	Notes
Functional Studies		Use at an assay dependent dilution.

Images



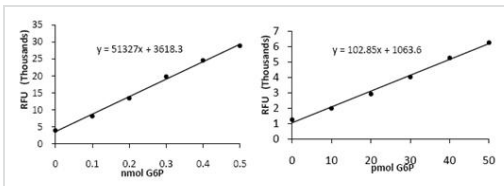
Glucose 6 phosphate measured in mouse tissue lysates showing quantity (pmol) per mg protein of tested sample

Functional Studies - Glucose 6 phosphate Assay
Kit(ab107923)



Glucose 6 phosphate measured in biological fluids showing quantity (pmol) per microliter of tested sample

Functional Studies - Glucose 6 phosphate Assay Kit (ab107923)



Glucose 6 phosphate standard curves (0 – 500 and 0 – 50 pmol range) generated using ab107923.

Functional Studies - Glucose 6 phosphate Assay Kit (ab107923)

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