

## Product datasheet

# Glucose 6 Phosphate Dehydrogenase Assay Kit (Colorimetric) ab102529

★★★★★ [1 Abreviews](#) [20 References](#) [8 Images](#)

### Overview

<b>Product name</b>	Glucose 6 Phosphate Dehydrogenase Assay Kit (Colorimetric)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts
<b>Assay type</b>	Enzyme activity
<b>Sensitivity</b>	> 0.04 mU/well
<b>Assay time</b>	1h 00m
<b>Product overview</b>	<p>Glucose 6 Phosphate Dehydrogenase Assay Kit (Colorimetric) (ab102529) is a simple, sensitive and rapid assay detects the activity of Glucose 6 Phosphate Dehydrogenase (G6PDH or G6PD) in a variety of samples.</p> <p>In the G6PD assay protocol, glucose 6 phosphate is oxidized, which leads to the conversion of a nearly colorless probe to an intensely colored product with an absorbance at 450nm.</p> <p>The G6PD assay kit can detect as low as 0.04mU G6PD per well.</p> <p>G6PD assay protocol summary:</p> <ul style="list-style-type: none"> <li>- add samples and positive control to wells</li> <li>- add reaction mix</li> <li>- analyze on a microplate reader for 5-30 min</li> </ul>
<b>Notes</b>	<p>This product is manufactured by BioVision, an Abcam company and was previously called K757 Glucose-6-Phosphate Dehydrogenase Activity Colorimetric Assay Kit. K757-100 is the same size as the 100 test size of ab102529.</p>
<b>Platform</b>	Microplate reader

### Properties

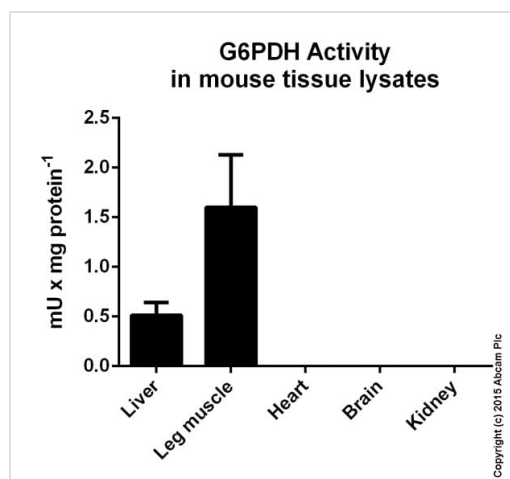
<b>Storage instructions</b>	Store at -20°C. Please refer to protocols.
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Components	100 tests
Assay Buffer V	1 x 25ml
Developer Solution III	1 vial
Development Enzyme Mix IX	1 vial
G6PDH Substrate	1 vial
NADH Standard I	1 vial

## Relevance

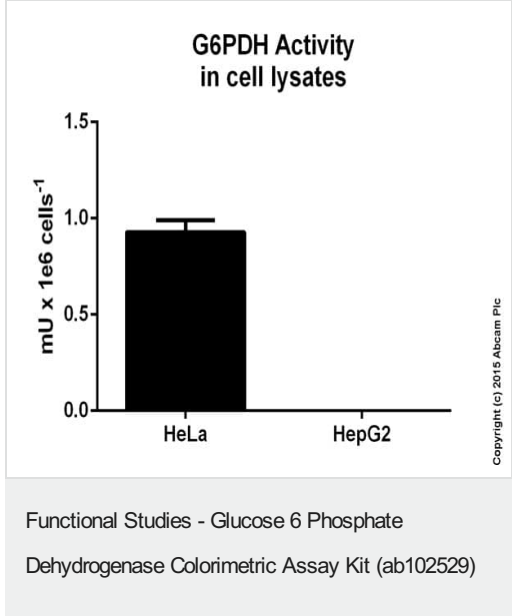
Glucose 6 phosphate dehydrogenase (G6PDH) is a cytosolic enzyme in the pentose phosphate pathway, a metabolic pathway that supplies reducing energy to cells (such as erythrocytes) by maintaining the level of the co-enzyme nicotinamide adenine dinucleotide phosphate (NADPH). The NADPH in turn maintains the level of glutathione in these cells that helps protect the red blood cells against oxidative damage. Of greater quantitative importance is the production of NADPH for tissues actively engaged in biosynthesis of fatty acids and/or isoprenoids, such as the liver, mammary glands, adipose tissue, and the adrenal glands.

## Images



G6PDH Activity measured in mouse tissue lysates. Protein concentration for samples varied from 7 mg/mL to 17 mg/mL. Samples were diluted 1-3 fold.

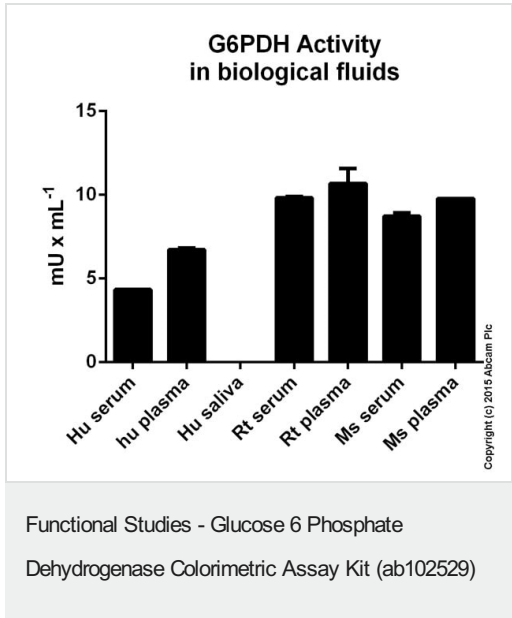
Functional Studies - Glucose 6 Phosphate  
Dehydrogenase Colorimetric Assay Kit (ab102529)



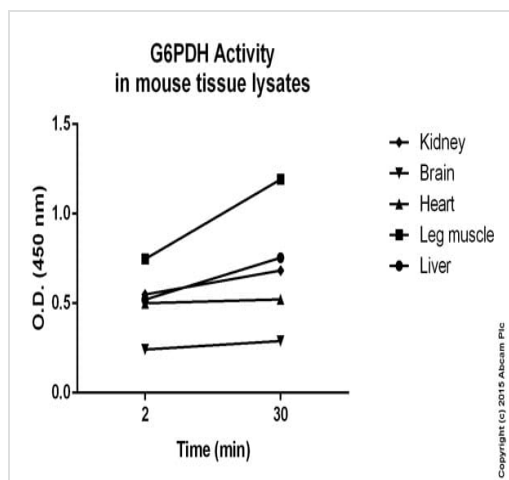
G6PDH Activity measured in cell lysates.

Samples with the concentration of 4e6 cells/mL were used.

Samples were undiluted.

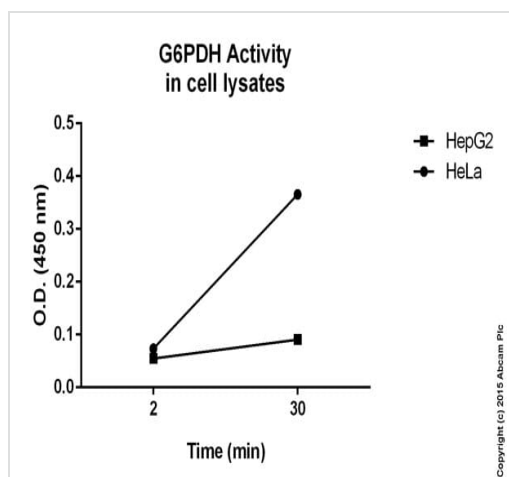


G6PDH Activity measured in biological fluids. Samples were undiluted.



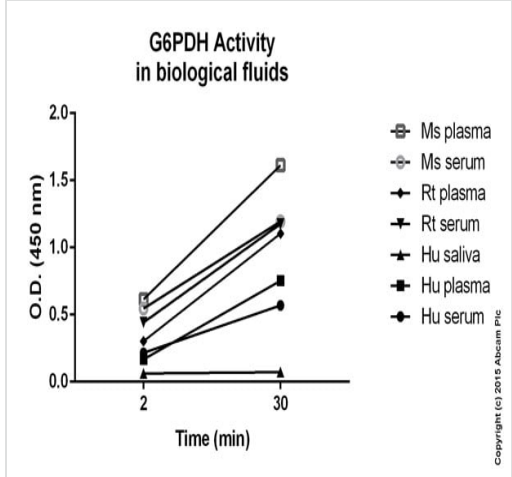
Functional Studies - Glucose 6 Phosphate  
Dehydrogenase Colorimetric Assay Kit (ab102529)

G6PDH Activity measured in mouse tissue lysates. Protein concentration for samples varied from 7 mg/mL to 17 mg/mL. Samples were undiluted.



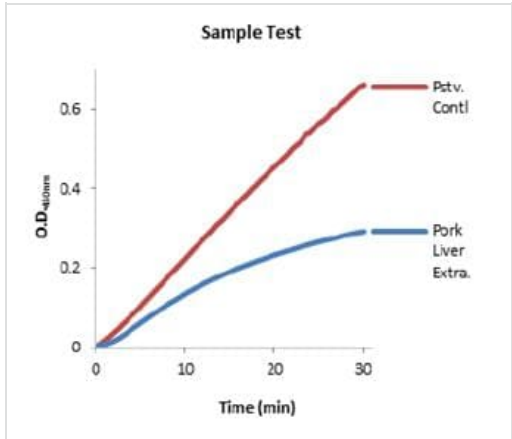
Functional Studies - Glucose 6 Phosphate  
Dehydrogenase Colorimetric Assay Kit (ab102529)

G6PDH Activity measured in cell lysates. Samples with the concentration of 4e6 cells/mL were used. Samples were undiluted.



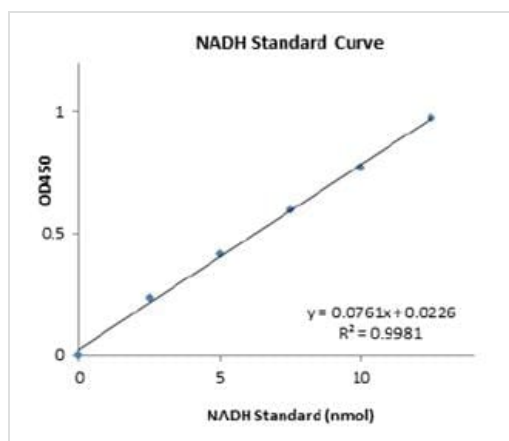
G6PDH Activity measured in biological fluids. Samples undiluted.

Functional Studies - Glucose 6 Phosphate  
Dehydrogenase Colorimetric Assay Kit (ab102529)



Example of positive control and pork liver samples test curves obtained using ab102529

Functional Studies - Glucose 6 Phosphate  
Dehydrogenase Colorimetric Assay Kit (ab102529)



Example of Standard curve obtained using ab102529

Functional Studies - Glucose 6 Phosphate  
Dehydrogenase Assay Kit (ab102529)

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