Glucose 6 Phosphate Dehydrogenase Assay Kit (Colorimetric) ab102529

Overview

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
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<tbody>
<tr>
<td>Product name</td>
<td>Glucose 6 Phosphate Dehydrogenase Assay Kit (Colorimetric)</td>
</tr>
<tr>
<td>Detection method</td>
<td>Colorimetric</td>
</tr>
<tr>
<td>Sample type</td>
<td>Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts</td>
</tr>
<tr>
<td>Assay type</td>
<td>Enzyme activity</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>&gt; 0.04 mU/well</td>
</tr>
<tr>
<td>Assay time</td>
<td>1h 00m</td>
</tr>
<tr>
<td>Assay duration</td>
<td>Multiple steps standard assay</td>
</tr>
</tbody>
</table>

Product overview

Abcam's Glucose 6 Phosphate Dehydrogenase Assay Kit (Colorimetric) (ab102529) is a simple, sensitive and rapid assay detects the activity of Glucose 6 Phosphate Dehydrogenase (G6PDH) in a variety of samples. In the assay, 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.

The G6PDH Assay Kit can detect as low as 0.04mU G6PDH per well.

Visit our FAQs page for tips and troubleshooting.

Platform

Microplate

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>G6PDH Assay Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>G6PDH Developer</td>
<td>Red</td>
<td>1 vial</td>
</tr>
<tr>
<td>G6PDH Positive Control</td>
<td>Green</td>
<td>1 vial</td>
</tr>
<tr>
<td>G6PDH Substrate</td>
<td>Blue</td>
<td>1 vial</td>
</tr>
</tbody>
</table>
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.

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.

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

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.

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

Example of Standard curve obtained using ab102529

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