

Product datasheet

2-Phosphoglycerate Assay Kit (Colorimetric/Fluorometric) ab174097

[3 References](#) [3 Images](#)

Overview

Product name	2-Phosphoglycerate Assay Kit (Colorimetric/Fluorometric)
Detection method	Colorimetric/Fluorometric
Sample type	Cell culture extracts, Adherent cells, Suspension cells, Tissue Extracts
Assay type	Quantitative
Species reactivity	Reacts with: Mammals, Other species
Product overview	Abcam's 2-Phosphoglycerate Assay kit (ab174097) is a sensitive, fast and easy-to-use kit. In this assay, 2PG(2-phosphoglycerate) is converted by Enzyme Mix to PEP (phosphoenolpyruvate), which is further converted to pyruvate. The pyruvate is oxidized to generate color (OD 570 nm) and fluorescence (Ex/Em = 535/587 nm). The colored product or fluorescence intensity is proportional to 2PG level. This assay kit can detect 2PG level below 20 pmol and can be used for a variety of sample types.

Visit our [FAQs page](#) for tips and troubleshooting.

Notes	<p>This product is manufactured by BioVision, an Abcam company and was previously called K778 2-Phosphoglycerate Colorimetric/Fluorometric Assay Kit. K778-100 is the same size as the 100 test size of ab174097.</p> <p>2-phosphoglycerate (2PG) is an important intermediate in the glycolysis pathway. 2PG is converted by enolase to phosphoenolpyruvate (PEP) which is a key step from glucose to pyruvate. Aberrant glycolytic metabolism is a highly studied and potentially critical mechanism for ATP generation in cancer cells (The Warburg effect). Measurement of intracellular 2PG levels is a useful tool for analyzing the glycolytic pathway and its relevance to cancer research.</p>
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Platform	Microplate reader
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Properties

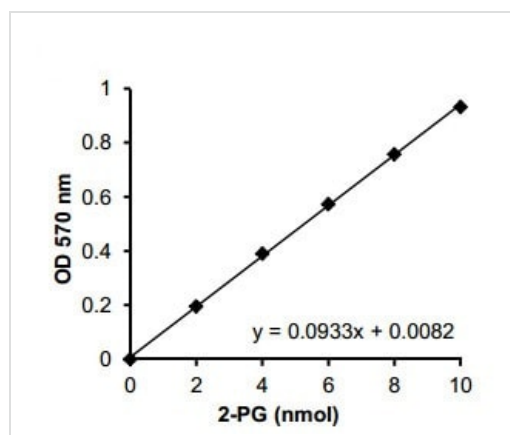
Storage instructions	Store at -20°C. Please refer to protocols.
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Components	100 tests
2PG Enzyme Mix	1 vial
2-Phosphoglycerate	1 vial
Assay Buffer IV	1 x 25ml
Development Enzyme Mix I	1 vial
OxiRed Probe	1 x 0.2ml
PEP Converter Mix	1 vial

Relevance

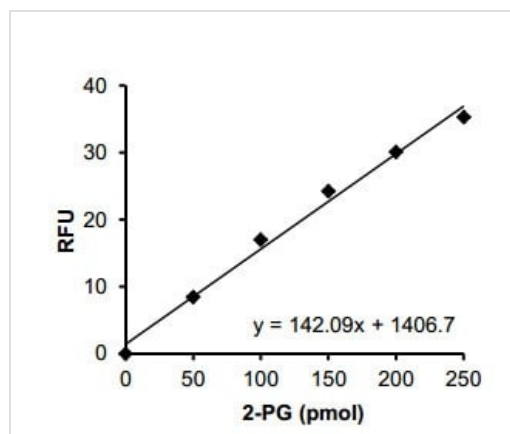
2-phosphoglycerate (2PG) is an important intermediate in the glycolysis pathway. 2-Phosphoglycerate is converted by enolase to phosphoenolpyruvate (PEP) which is a key step from glucose to pyruvate. Aberrant glycolytic metabolism is a highly studied and potentially critical mechanism for ATP generation in cancer cells (The Warburg effect).

Images



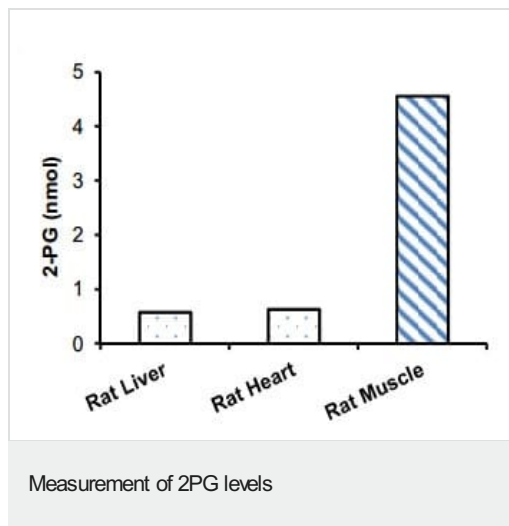
2PG Standard Curve (Colorimetric)

Example of 2PG Standard curve obtained with 2-PG Assay Kit (ab174097) by colorimetric reading. Please note this data is example data only.



2PG Standard Curve (Fluorimetric)

Example of 2PG Standard curve obtained with 2-PG Assay Kit (ab174097) by fluorimetric reading. Please note this data is example data only.



Measurement of 2PG level in rat liver, heart and muscle lysate (200 μ g protein each). Assays were performed according to kit protocol. This is example data only.

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