

## Product datasheet

# Glycerol-3-Phosphate Dehydrogenase (G3PDH) Assay Kit (Colorimetric) ab174095

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### Overview

<b>Product name</b>	Glycerol-3-Phosphate Dehydrogenase (G3PDH) Assay Kit (Colorimetric)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Cell Lysate, Tissue Lysate
<b>Assay type</b>	Enzyme activity (quantitative)
<b>Sensitivity</b>	< 1 mU/well
<b>Species reactivity</b>	<b>Reacts with:</b> Mammals, Other species
<b>Product overview</b>	Glycerol-3-Phosphate Dehydrogenase (G3PDH) Assay Kit (Colorimetric) (ab174095) is a product where G3PDH reacts with the substrate to form an intermediate, which reduces a colorless probe to a colored product with strong absorbance at 450 nm. The assay is simple, sensitive and rapid and can detect Glycerol-3-Phosphate dehydrogenase activity less than 1 mU/well.

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

**Notes** This product is manufactured by BioVision, an Abcam company and was previously called K640 Glycerol-3-Phosphate Dehydrogenase Activity Colorimetric Assay Kit. K640-100 is the same size as the 100 test size of ab174095.

Glycerol-3-Phosphate Dehydrogenase (EC 1.1.1.8) is an important enzyme for lipid metabolism. It catalyzes the reversible conversion between dihydroxyacetone phosphate and glycerol-3-phosphate. GPDH plays multiple functions inside cells; it links carbohydrate and lipid metabolism, and provides electrons through the Glycerol-3-Phosphate Shuttle. When progenitor adipocytes differentiate into mature adipocytes, GPDH activity increases significantly. Analysis of glycerol-3-phosphate dehydrogenase activity is crucial for the study of fatty acid metabolic pathways.

**Platform** Microplate reader

### Properties

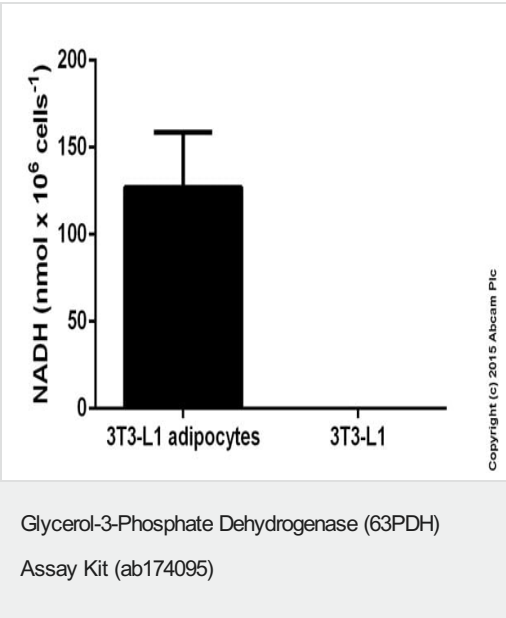
**Storage instructions** Store at -20°C. Please refer to protocols.

Components	100 tests
GPDH Assay Buffer	1 x 27ml
GPDH Positive Control	1 vial
GPDH Probe	1 vial
GPDH Substrate	1 vial
NADH Standard	1 vial

Cellular localization

Cytoplasmic

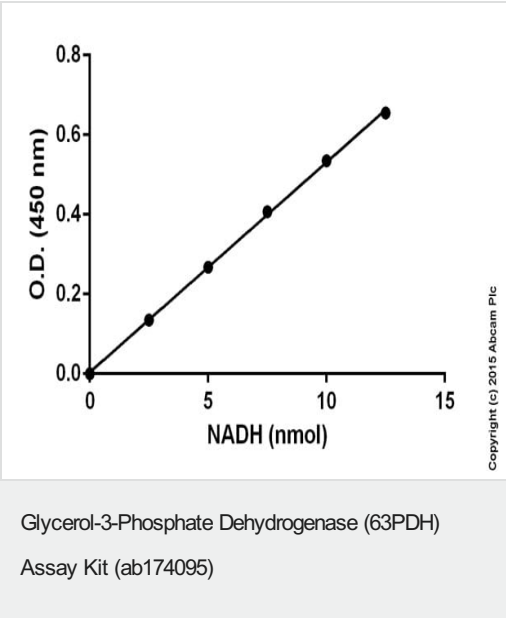
Images



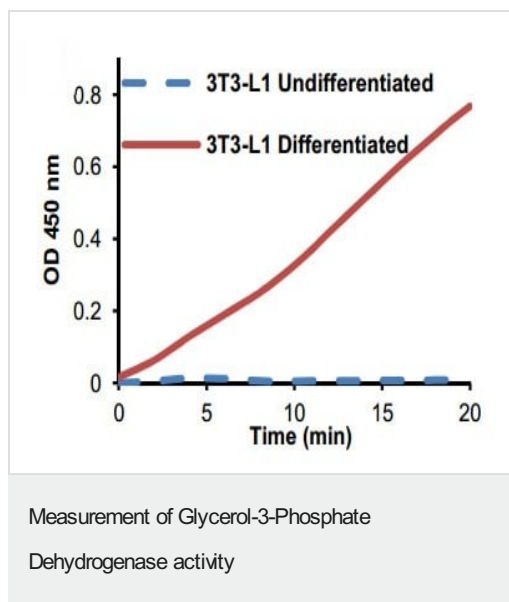
NADH measured in cell lysates showing quantity (nmol) per 1 mln cells after 30 min incubation time.

Samples with the concentration of 5e6 cells/mL were used.

Samples were diluted 2-18 fold.



Standard curve: mean of duplicates (+/- SD) with background reads subtracted



Measurement of Glycerol-3-Phosphate Dehydrogenase activity in 3T3-L1 pre-adipocyte (60 µg) and differentiated 3T3-L1 adipocytes (60 µg) using Glycerol-3-Phosphate Dehydrogenase activity (GPDH) Assay Kit (Colorimetric) (ab174095). This is example data only.

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