

Glucose Assay Kit ab65333

[195 References](#) [5 Images](#)

Overview

Product name	Glucose Assay Kit
Detection method	Colorimetric/Fluorometric
Sample type	Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Cell Lysate, Tissue Lysate
Assay type	Quantitative
Sensitivity	1 μ M
Range	1 μ M - 10000 μ M
Assay time	0h 40m
Product overview	Glucose Assay Kit ab65333 is a rapid, simple and sensitive assay used to quantify glucose levels in biological samples such as serum, plasma, and other body fluids, food, growth medium, etc.

In the glucose assay protocol, the glucose enzyme mix oxidizes glucose to generate a product which reacts with a dye to generate color ($\lambda = 570$ nm) and fluorescence (Ex/Em = 535/587 nm). The generated color and fluorescence is proportionally to the amount of glucose.

The kit detects glucose in the range 1-10000 μ M.

Glucose assay protocol summary:

- add samples (deproteinized) and standards to wells
- add reaction mix and incubate for 30 min at 37°C
- analyze with microplate reader

Notes This product is manufactured by BioVision, an Abcam company and was previously called K606 Glucose Colorimetric/Fluorometric Assay Kit. K606-100 is the same size as the 100 test size of ab65333.

If you have reducing substances in your samples, we recommend using Glucose Detection Kit II ([ab102517](#)).

Review our [Metabolism Assay Guide](#) to learn about assays for metabolites, metabolic enzymes, mitochondrial function, and oxidative stress, and also about how to assay metabolic function in live cells using your plate reader.

Platform Microplate reader

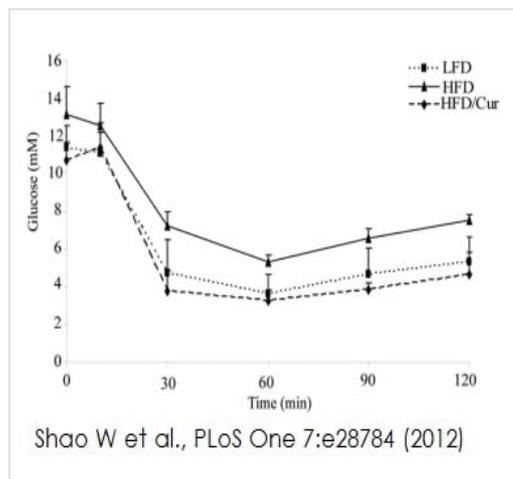
Properties

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

Components	100 tests	2000 tests
Assay Buffer II	1 x 25ml	20 x 25ml
Development Enzyme Mix II	1 vial	20 vials
OxiRed Probe	1 x 200µl	20 x 200µl
Glucose Standard	1 x 100µl	20 x 100µl

Relevance Glucose (C₆H₁₂O₆; FW: 180.16) is a ubiquitous energy source in most organisms, from bacteria to humans. The breakdown of carbohydrates produces mono- and disaccharides, most of which is glucose. Through glycolysis and TCA (citric acid cycle), glucose is oxidized to eventually form CO₂ and water, generating the universal energy molecule ATP. Glucose is a primary source of energy for the brain and a critical component in the production of proteins and in lipid metabolism and therefore measurement of glucose level is a key diagnostic parameter for many metabolic disorders.

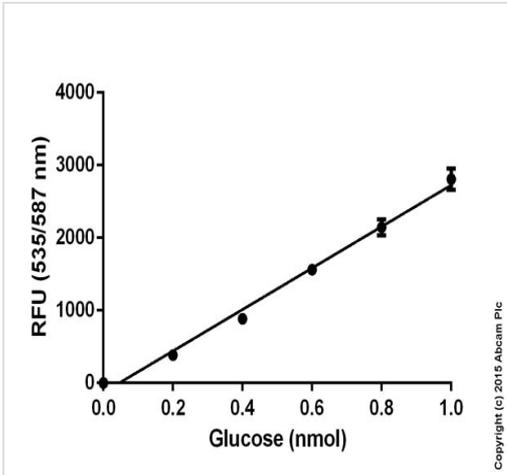
Images



Shao et al investigated the functional outcome of long-term curcumin supplementation on glucose homeostasis. Glucose metabolism was determined in animals with low fat diet (LFD), high fat diet (HFD) and HFD with curcumin feeding using ab65333. Intraperitoneal insulin tolerance tests (IPITT) were conducted at the end of the 26 weeks. It was concluded curcumin improves insulin sensitivity and disposal of glucose.

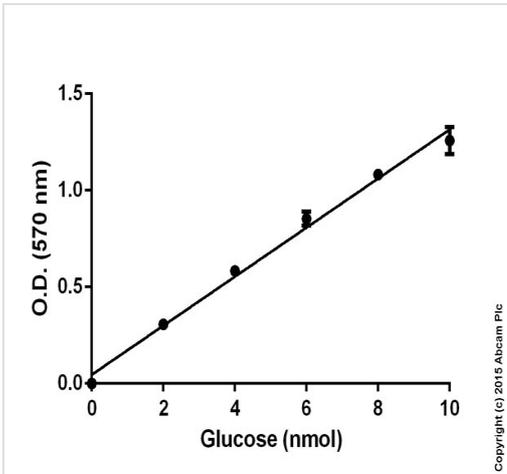
Functional studies- ab65333

Image from Shao W et al., PLoS One 7(1), Fig 2C. Doi: 10.1371/journal.pone.0028784. Reproduced under the Creative Commons license <http://creativecommons.org/licenses/by/4.0/>



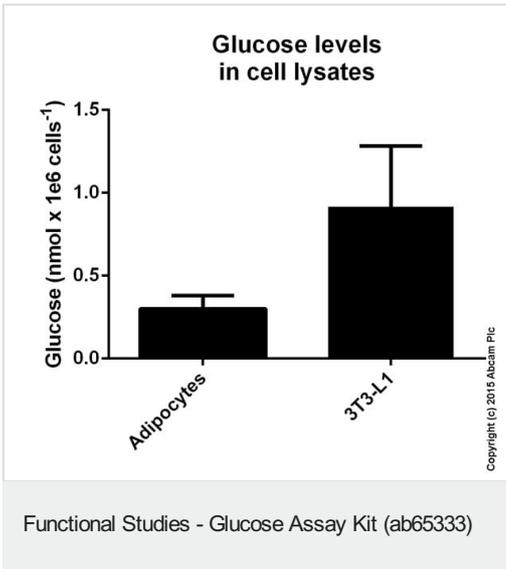
Standard curve: mean of duplicates (+/- SD) with background reads subtracted

Functional Studies - Glucose Assay Kit (ab65333)



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

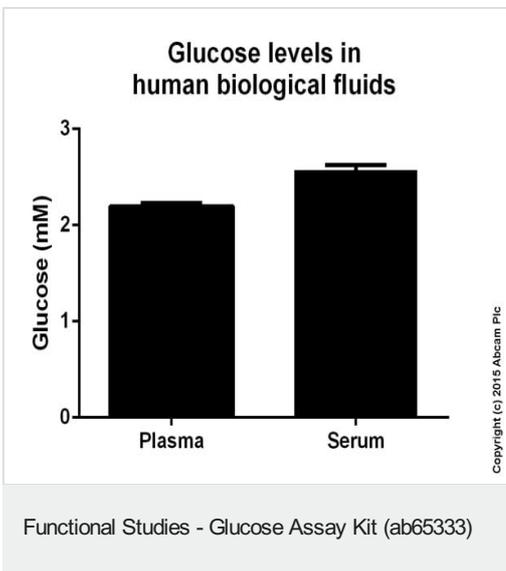
Functional Studies - Glucose Assay Kit (ab65333)



Glucose measured in cell lysates showing quantity (nmol) per million cells.

Samples with the concentration of 2×10^7 cells/mL were used.

Samples were diluted 1.5-13.5 fold and measured colorimetrically.



Glucose measured in human biological fluids showing quantity (μmol) per mL of tested sample. Samples were diluted 13.5 fold and measured colorimetrically.

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