abcam

Product datasheet

# Glucose Assay Kit (Fluorometric, High Sensitivity) ab169559

9 References 2 Images

## Overview

| | |
|---|---|
| **Product name** | Glucose Assay Kit (Fluorometric, High Sensitivity) |
| **Detection method** | Fluorescent |
| **Sample type** | Serum, Plasma, Other biological fluids, Tissue, Adherent cells, Suspension cells, Tissue Culture Media |
| **Assay type** | Quantitative |
| **Sensitivity** | < 0.5 µM |
| **Species reactivity** | **Reacts with:** Mammals, Other species |
| **Product overview** | Picoprobe Glucose Assay Kit (ab169559) is a simple, rapid, ultra-sensitive assay to measure glucose. It is suitable for high-throughput use. In this assay, D-glucose is enzymatically oxidized to form a product which reacts with a colorless probe to generate the fluorescence (Ex/Em = 535/587 nm). The fluorescence generated is directly proportional to the amount of glucose. This assay kit can detect less than 0.5 µM glucose in various biological samples. |
| **Notes** | This product is manufactured by BioVision, an Abcam company and was previously called K688 PicoProbe™ Glucose Fluorometric Assay Kit. K688-100 is the same size as the 100 test size of ab169559.<br><br>Glucose is the main energy source for virtually all living organisms. Glucose level is a key diagnostic parameter for many metabolic disorders. Measurement of glucose can be very important in both research and drug discovery processes. |
| **Platform** | Microplate reader |

## Properties

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

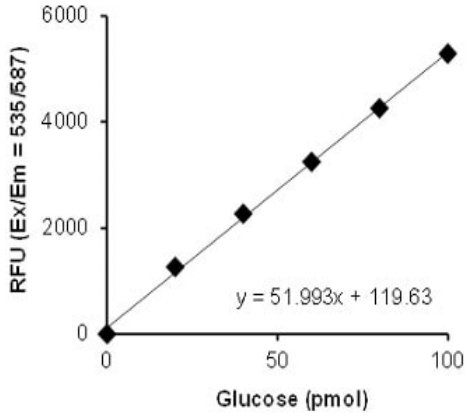
| Components | Identifier | 100 tests |
|---|---|---|
| Glucose Assay Buffer | | 1 x 25ml |
| Glucose Enzyme Mix (lyophilized) | Green | 1 vial |

| Components | Identifier | 100 tests |
|---|---|---|
| Glucose Standard | Yellow | 1 x 100µl |
| Glucose Substrate Mix | Red | 1 vial |
| PicoProbe | Blue | 1 x 0.4ml |

**Relevance**

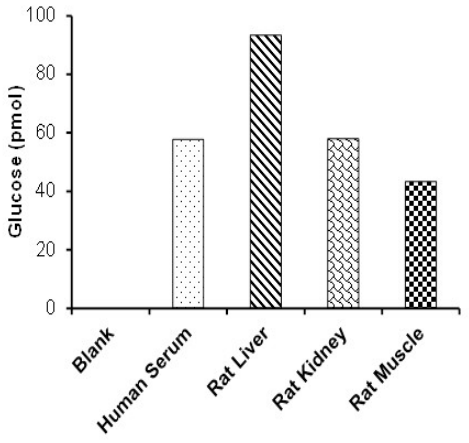
Glucose ($C_6H_{12}O_6$; FW: 180.16) is a ubiquitous energy source in most organisms, from bacteria to humans. The breakdown of carbohydrates produces mono- and disaccharides, most of which is glucose. Through glycolysis and TCA (citric acid cycle), glucose is oxidized to eventually form $CO_2$ and water, 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




Glucose standard curve

Representative standard curve.




Measurement of glucose levels in samples

Measurement of glucose levels in human serum (1 µL of 1:10 diluted) and rat tissue lysates from liver, kidney and muscle (0.14 µg, 0.19 µg and 0.93 µg respectively).

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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