



QuantiChrom™ Glucose Assay Kit

Glucose (C₆H₁₂O₆) is a ubiquitous fuel molecule in biology. It is oxidized through a series of enzyme-catalyzed reactions to form carbon dioxide and water, yielding the universal energy molecule ATP. Due to its importance in metabolism, glucose level is a key diagnostic parameter for many metabolic disorders. Increased glucose levels have been associated with diabetes mellitus, hyperactivity of thyroid, pituitary and adrenal glands. Decreased levels are found in insulin secreting tumors, myxedema, hypopituitarism and hypoadrenalism.

Simple, direct and automation-ready procedures for measuring glucose concentrations find wide applications in research and drug discovery. BioAssay Systems' glucose assay kit is designed to measure glucose directly in serum or plasma without any pretreatment. The improved o-toluidine method utilizes a specific color reaction with glucose. The absorbance at 630nm is directly proportional to the glucose concentration in the sample.

APPLICATIONS:

Direct Assays: glucose in biological samples (e.g. serum and plasma).

Drug Discovery/Pharmacology: effects of drugs on glucose metabolism.

Food and Beverages: glucose in food, beverages etc.

KEY FEATURES:

Sensitive and accurate. Use as little as 5 µL samples. Linear detection range 0.7 mg/dL (39 µM) to 300 mg/dL (16.6 mM) glucose in 96-well plate.

Simple and convenient. The procedure involves addition of a single working reagent and incubation for 8 min in a boiling water bath and reading optical density.

Improved reagent stability. The optimized formulation has greatly enhanced the reagent and signal stability.

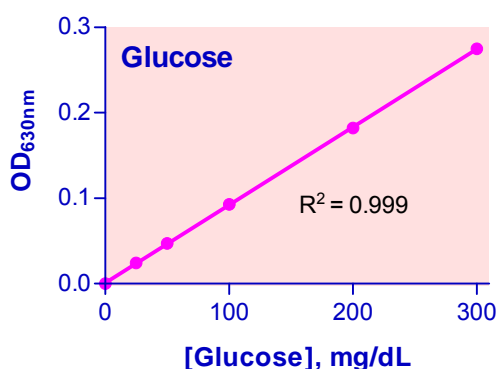
Low interference in biological samples. No pretreatments are needed. Assays can be directly performed on serum and plasma samples.

PRODUCT INFORMATION:

QuantiChrom™ Glucose Assay Kit DIGL-200

Each kit is sufficient for 200 assays in 96-well plate. Kit includes:

- 1 x 100mL Reagent
- 1 mL 300 mg/dL glucose standard



Standard Curve in 96-well plate in assay

REFERENCES:

- [1]. Sacks DA, Greenspoon JS, Fotheringham N (1992). Could the fasting plasma glucose assay be used to screen for gestational diabetes? J Reprod Med. 37:907-909.
- [2]. Northam BE, Smith JH, Fitzgerald MG, Nattrass M, Wright AD (1982). Value of serum glucose assay as part of the biochemical profile in screening for diabetes. Ann Clin Biochem. 19:412-415.
- [3]. Giampietro O, Pilo A, Buzzigoli G, Boni C, Navalesi R (1982). Four methods for glucose assay compared for various glucose concentrations and under different clinical conditions. Clin Chem. 28:2405-2407.