

Total Carbohydrate Assay Kit

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CATALOG #
AAA11434

PRODUCT SYNONYMS

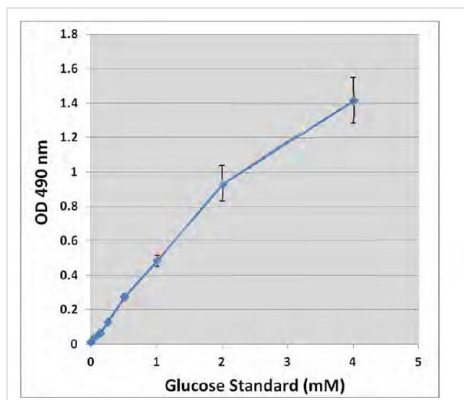
Total Carbohydrate; Total Carbohydrate Assay Kit; Total Carbohydrate assay kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Store glucose standard at 4 degree C and store the other components at room temperature.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Total Carbohydrate assay kit

Principle of the Assay: Total Carbohydrate Assay Kit measures total carbohydrate within food samples, urine, serum, plasma, lysate, or tissue samples based on the phenol-sulfuric acid method. Carbohydrates are hydrolyzed to furfural and other derivative forms in the presence of sulfuric acid. Upon addition of Developing Solution, a chromagen is formed that can be detected at 490 nm (Figure 1).

Background/Introduction: Carbohydrates are molecules made up of oxygen, hydrogen, and carbon. Typically carbohydrates contain a hydrogen:oxygen atom ratio of 2:1 (as with water). In the field of biochemistry, carbohydrates are viewed synonymously with saccharides, which describe sugars, starch, and cellulose. The saccharides can be further categorized as monosaccharides, disaccharides, oligosaccharides, and polysaccharides. Typically the lower molecular weight monosaccharides (such as glucose) and disaccharides (such as sucrose) are referred to as sugars. Carbohydrates perform key roles in living organisms such as storing energy, as parts of coenzymes, as part of genetic material (DNA and RNA) as well as structural roles. The measurement of total carbohydrate concentration is important in several fields such as the food industry, pharmaceutical research, petroleum industry, as well as environmental research. Many techniques such as light scattering, nuclear magnetic resonance, capillary electrophoresis, infrared spectroscopy, and chromatography have been used to detect total carbohydrates, but these techniques are costly, time consuming, and require complex analytical skills. Total Carbohydrate Assay Kit is a simple colorimetric assay that measures the amount of total carbohydrate present in foods, urine, plasma, serum, tissue homogenates, or cell lysates in a 96-well microtiter plate format. Each kit provides sufficient reagents to perform up to 100 assays, including blanks, standards and unknown samples. Sample carbohydrate concentrations are determined by comparison with a known glucose standard. The kit has a detection sensitivity limit of 62.5 μ M glucose.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/total-carbohydrate/11434>