CREATIVE BIOMART®
Assay Kit

2-NBDG Glucose Uptake Assay Kit (Cell-Based)

Product Information

Cat

Kit-1012

Common Name

Glucose

Cat.No. Kit-1012

Description

Glucose is a ubiquitous energy source in most organisms and plays a pivotal role in cellular metabolisms and homeostasis. Cancer cells exhibit increased glucose uptake to support their high proliferation rate. 2-NBDG (2-deoxy-2-[(7-nitro-2,1,3-benzoxadiazol-4-yl) amino]-D-glucose) is a fluorescent deoxyglucose analog that can be taken up by cells through glucose transporters. However, 2-NBDG cannot be fully utilized in glycolysis because of its modification and thus accumulates inside the cells. Fluorescence generated by this fluorescent glucose analog is proportional to glucose uptake by the cells and can be used to measure glucose uptake using fluorescent microscopy and flow cytometry. To validate the assay, the kit includes phloretin, a natural phenol that inhibits glucose uptake. This easy to use non-radioactive kit allows imaging and accurate measurement of glucose uptake in cultured cells in response to insulin, growth factors etc.

Applications

Measurement of glucose uptake in response to insulin, growth factors, cytokines, mitogens and nutrients, etc.
Dual-staining of glucose transporters and glucose uptake
Analysis of glucose metabolism and cell signaling in various cell types
Screening of anti-diabetic compounds

Storage

-20°C

Shipping

Tel: 1-631-559-9269 1-516-512-3133
Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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Assay Kit

2-NBDG Glucose Uptake Assay Kit (Cell-Based)

Gel Pack

Size

50 assays

Kit Components

Analysis Buffer (50X); 2-NBDG Reagent (100X); Glucose Uptake Enhancer; Phloretin (100X)

Detection method FACS (488 nm excitation laser) and fluorescent microscope (excitation range 420 nm-495 nm).

Features & Benefits

Easy-to-use;
Non-radioactive;
Image and accurately measure glucose uptake in cultured cells in response to insulin, growth factors etc.

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