CREATIVE BIOMART®
Assay Kit

2-Deoxyglucose Colorimetric Assay Kit

Product Information

Cat.No.

Kit-0003

Product Overview

2-Deoxyglucose Assay Kit (Colorimetric) is a quantitative colormetric determination of 2-deoxyglucose at 412 nm.

Description

Glucose uptake is an important biological tool for studying cell signaling and glucose metabolism. Of many different methods available for measuring glucose uptake, 2-deoxyglucose (2-DG) has been most widely used because of its structural similarity to glucose. As with glucose, 2-DG can be taken up by glucose transporters and metabolized to 2-DG-6-phosphate (2-DG6P). 2-DG6P, however, cannot be further metabolized, and thus accumulates in the cells. The accumulated 2-DG6P is directly proportional to 2-DG (or glucose) uptake by cells.In 2-Deoxyglucose Assay Kit (Colorimetric), 2-DG6P is oxidized to generate NADPH, which is determined by an enzymatic recycling amplification reaction. This easy to use non-radioactive kit is highly sensitive and can detect glucose uptake as low as 10 pmol/sample.

Applications

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

Target Species

Mammals

Usage

For research use only (RUO)

Storage

Store kit at -20°C, protected from light. Warm all Buffers to room temperature before use. Briefly

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

2-Deoxyglucose Colorimetric Assay Kit

centrifuge all small vials prior to opening.

Kit Components

Extraction Buffer. Cap code: NM. 17 mlNeutralization Buffer. Cap code: clear. 2.5 ml2-Deoxyglucose (2-DG, 10 mM). Cap code: purple. 1 mlAssay Buffer. Cap code: WM. 10 mlEnzyme Mix (Lyophilized). Cap code: orange. 1 vialRecycling Mix (Lyophilized). Cap code: blue. 1 vial2-DG6P Standard (Lyophilized). Cap code: yellow. 1 vialGlutathione Reductase (Lyophilized). Cap code: green. 2 vialsSubstrate-DTNB (Lyophilized). Cap code: red. 2 vials

Detection method Colorimetric

Compatible Sample Types

Attached Cell, Suspension Cell

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