CREATIVE BIOMART®
Assay Kit

Hexokinase Colorimetric Assay Kit

Product Information

Cat.No. Kit-0464

Product Overview

Hexokinase Assay Kit (Colorimetric) is a quantitative colormetric determination of hexokinase at 450 nm.

Description

Hexokinases (HK) are found in many organisms including bacteria, plants and mammals and play an important role in glucose metabolism. Hexokinases phosphorylate glucose and generate glucose-6-phosphate for glycolysis. Hexokinases have four isoforms (HK- I, II, III and IV). HK-I, HK-II and HK-III have low Km, while HK-IV has 100 fold high Km. Hexokinase deficiency leads to severe human diseases such as X-linked muscular dystrophy and a rare autosomal recessive hemolytic anemia. On the other hand, increased hexokinase activity is detected in various human tumors and is associated with metastasis. Early detection of abnormal hexokinase activity is crucial for diagnosis, prediction and treatment of the disease. In Hexokinase Assay Kit (Colorimetric), glucose is converted to glucose-6-phosphate by hexokinase; the glucose-6-phosphate is oxidized by glucose-6-phosphate dehydrogenase to form NADH, which reduces a colorless probe to a colored product with strong absorbance at 450 nm. The assay is simple, sensitive and rapid and can detect hexokinase activity even less than 0.1 mU/well.

Applications

Measurement of Hexokinase activity in various tissues/cells.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

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Email:info@creative-biomart.org
Fax:1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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Hexokinase Colorimetric Assay Kit

Store kit at -20°C, protected from light. Warm all buffers to room temperature before use. Briefly centrifuge all small vials prior to opening.

Kit Components

HK Assay Buffer. Cap code: WM. 25 mlHK Substrate. Cap code: blue. 1 mlHK Coenzyme (Lyophilized). Cap code: purple. 1 vialHK Enzyme Mix (Lyophilized). Cap code: green. 1 vialHK Developer (Lyophilized). Cap code: red. 1 vialNADH Standard (Lyophilized). Cap code: yellow. 1 vialHK Positive Control (Lyophilized). Cap code: orange 1 vial

Detection method Colorimetric

Compatible Sample Types

Adherent Cell, Serum, Suspension Cell, Tissue

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