CREATIVE BIOMART®
Assay Kit

PGM Colorimetric Assay Kit

Product Information

Cat.No. Kit-0682

Product Overview

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

Description

Phosphoglucomutase (PGM) plays a key role in carbohydrate metabolism and widely exists in all organisms. PGM interconverts Glucose- 1-Phosphate (G1P) and Glucose-6-Phosphate (G6P) depending on the body requirement. When glycogen breaks down, G1P is generated and phosphoglucomutase converts G1P to G6P, which can go either to glycolytic pathway to generate ATP, or to pentose phosphate pathway to generate ribose and NADPH. On the other hand, when cells have extra energy, PGM converts G6P to G1P, which generates glycogen. In humans, phosphoglucomutase have 2 isoforms (PGM I and PGM II). PGM deficiency leads to glucose storage disease. Detection of abnormal phosphoglucomutase activity is crucial for diagnosis, prediction and treatment of the disease. In PGM Assay Kit (Colorimetric), PGM converts glucose-1-phosphate to glucose-6-phosphate; 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 Phosphoglucomutase Assay Kit is simple, sensitive and rapid and can detect PGM activity even less than 1 mU/reaction.

Applications

Measurement of phosphoglucomutase 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

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

Kit Components

PGM Assay Buffer. Cap code: WM. 27 mlPGM Substrate (lyophilized). Cap code: blue. 1 vialPGM Enzyme Mix (Lyophilized). Cap code: green. 1 vialPGM Developer (Lyophilized). Cap code: red. 1 vialNADH Standard (Lyophilized). Cap code: yellow. 1 vialPGM Positive Control (Lyophilized). Cap code: purple. 1 vial

Detection method Colorimetric

Compatible Sample Types

Attached Cell, Plasma, Suspension Cell, Tissue

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