CREATIVE BIOMART®
Assay Kit

Phosphoglucomutase Activity Colorimetric Assay Kit

Product Information

Cat.No.

Kit-0683

Product Overview

In Phosphoglucomutase Activity Assay Kit (Colorimetric), PGM (phosphoglucomuyase) 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.

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.

Applications

Functional Studies

Target Species

Reacts with: HumanPredicted to work with: all Mammals

Storage

Store the kit at-20°C and protect from light. Please read the entire protocol before performing the assay. Avoid repeated freeze/thaw cycles. Warm buffer to room temperature before use. Briefly centrifuge all small vials prior to opening

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Kit Components
Components Identifier 100 testsNADH Standard Yellow 1 vialPGM Assay Buffer WM 1 x 27mlPGM Developer Red 1 vialPGM Enzyme Mix Green 1 vialPGM Positive Control Purple 1 vialPGM Substrate Blue 1 vial
Compatible Sample Types
Plasma, Tissue, Adherent cells, Suspension cells, Tissue Homogenate
Sensitivity
< 1 mU/well

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