CREATIVE BIOMART®
Assay Kit

Phosphoglucose Isomerase Colorimetric Assay Kit

Product Information

Cat.No. Kit-0681

Product Overview

In Glucose-6-phosphate Isomerase Activity Assay Kit (Colorimetric), PGI (glucose-6-phosphate isomerase) converts fructose-6-phosphate to glucose-6-phosphate; the glucose-6-phosphate is oxidized by glucose-6-phosphate dehydrogenase to form a product, which reacts with a colorless probe to give strong absorbance at 450 nm. The PGI assay is simple, sensitive and rapid and can detect phosphoglucose isomerase activity less than 0.1 mU/reaction.

Description

Glucose-6-phosphate isomerase (phosphoglucose isomerase or PGI, EC 5.3.1.9) is an important housekeeping enzyme. PGI catalyzes the interconversion of glucose-6-phosphate to fructose-6-phosphate. PGI performs multiple functions & intracellularly plays key role in both glycolysis and gluconeogenesis. Extracellularly, PGI [also called Autocrine Motility Factor (AMF)] functions as a cytokine, which stimulates cell motility and is associated with tumor development and metastasis. In humans, PGI deficiency causes hemolytic anemia, whereas increased PGI activity is observed in many cancers such as gastrointestinal, kidney and breast cancer. Early detection of abnormal phosphoglucose isomerase activity is crucial for diagnosis, prediction and therapeutic strategy.

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.

Kit Components

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45-1 Ramsey Road, Shirley, NY 11967, USA

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Components Identifier 100 testsNADH Standard Yellow 1 vialPGI Assay Buffer WM 1 x 27mlPGI Developer Red 1 vialPGI Enzyme Mix Green 1 vialPGI Positive Control Purple 1 vialPGI Substrate Blue 1 vial

Compatible Sample Types
Tissue, Adherent cells, Suspension cells, Tissue Homogenate
Sensitivity
< 0.1 mU/well

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