

# 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: Human Predicted 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 tests  
NADH Standard Yellow 1 vial  
PGI Assay Buffer WM 1 x 27ml  
Developer Red 1 vial  
PGI Enzyme Mix Green 1 vial  
PGI Positive Control Purple 1 vial  
PGI Substrate Blue 1 vial

## Compatible Sample Types

Tissue, Adherent cells, Suspension cells, Tissue Homogenate

## Sensitivity

< 0.1 mU/well