

PGI Colorimetric Assay Kit

Cat. No. Kit-0680 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PGI Assay Kit (Colorimetric) is a quantitative colorimetric determination of PGI at 450 nm.
Description	Phosphoglucose isomerase (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. In PGI Assay Kit (Colorimetric), PGI 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.
Applications	Measurement of phosphoglucose isomerase activity in various tissues/cells Analysis of glucose metabolism and cell signaling in various cell types Screening anti-diabetic drugs
Usage	For research use only (RUO)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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

Storage	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	PGI Assay Buffer. Cap code: WM. 27 mlPGI Substrate (Lyophilized). Cap code: blue. 1 vialPGI Enzyme Mix (Lyophilized). Cap code: green. 1 vialPGI Developer (Lyophilized). Cap code: red. 1 vialNADH Standard (Lyophilized). Cap code: yellow. 1 vialPGI Positive Control (Lyophilized). Cap code: purple. 1 vial
Detection method	Colorimetric
Compatible Sample Types	Attached Cell, Bacteria, Fish, Suspension Cell, Tissue, Yeast

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