

Phosphoglucose Isomerase Activity Assay Kit (Colorimetric) ab155897

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概述

产品名称	Phosphoglucose Isomerase Activity Assay试剂盒(Colorimetric)
检测方法	Colorimetric
样品类型	Tissue, Adherent cells, Suspension cells, Tissue Homogenate
检测类型	Enzyme activity
灵敏度	< 0.1 mU/well
范围	2.5 nmol/well - 12.5 nmol/well
种属反应性	与反应: Mammals, Other species
产品概述	Abcam's Phosphoglucose Isomerase Activity Assay Kit (Colorimetric) (ab155897) is an assay where PGI (phosphoglucose 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.
说明	<p>This product is manufactured by BioVision, an Abcam company and was previously called K775 Phosphoglucose Isomerase Activity Colorimetric Assay Kit. K775-100 is the same size as the 100 test size of ab155897.</p> <p>Phosphoglucose isomerase (glucose-6-phosphate 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.</p>
平台	Microplate reader

性能

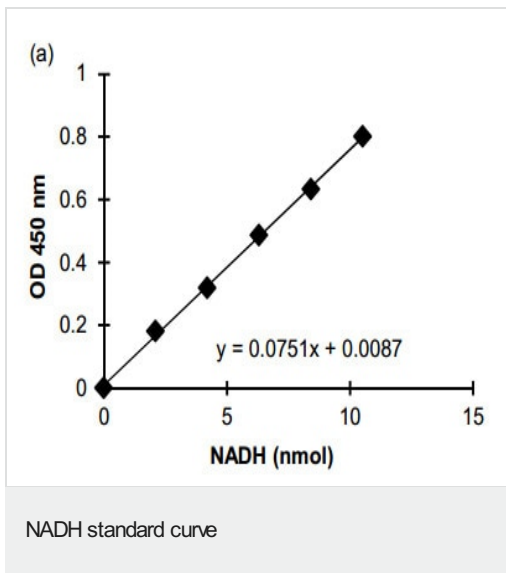
存放说明 Store at -20°C. Please refer to protocols.

组件	100 tests
Assay Buffer V	1 x 27ml
Developer Solution III	1 vial
Development Enzyme Mix IX	1 vial
NADH Standard I	1 vial
Phosphoglucose Isomerase Positive Control	1 vial
Phosphoglucose Isomerase Substrate	1 vial

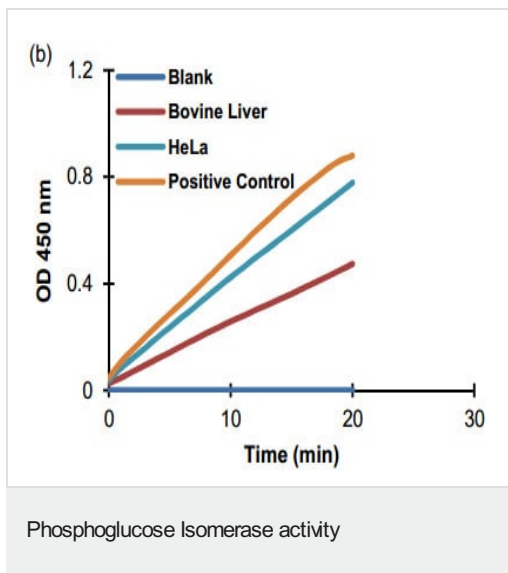
相关性 This gene belongs to the GPI family whose members encode multifunctional phosphoglucose isomerase proteins involved in energy pathways. The protein encoded by this gene is a dimeric enzyme that catalyzes the reversible isomerization of glucose-6-phosphate and fructose-6-phosphate. The protein functions in different capacities inside and outside the cell. In the cytoplasm, the gene product is involved in glycolysis and gluconeogenesis, while outside the cell it functions as a neurotrophic factor for spinal and sensory neurons. Defects in this gene are the cause of nonspherocytic hemolytic anemia and a severe enzyme deficiency can be associated with hydrops fetalis, immediate neonatal death and neurological impairment.

细胞定位 Cytoplasmic and Secreted

图片



NADH standard curve generated using the method described in the protocol booklet.



Phosphoglucose Isomerase activity in bovine liver, HeLa cell lysate and positive control

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