

Triose Phosphate Isomerase Activity Colorimetric Assay Kit

Product Information

Cat.No.

Kit-0817

Product Overview

Triose Phosphate Isomerase Activity Assay Kit (Colorimetric) is used to measure Triose Phosphate Isomerase activity.

Description

Triose Phosphate Isomerase (TPI or TIM: EC 5.3.1.1) is an important enzyme for glycolysis. It reversibly interconverts dihydroxyacetone phosphate and glyceraldehyde-3-phosphate, thus maintaining the equilibrium of these two triose phosphates. TPI connects glycolysis to pentose phosphate pathway and lipid metabolism. It is a stable homodimer found in almost all organisms. In humans, TPI deficiency is a rare multisystem disorder and leads to progressive neurological dysfunction, characterized by hemolytic anemia, cardiomyopathy and progressive neuromuscular impairment. Triose Phosphate Isomerase Activity Assay Kit (Colorimetric) provides a quick and easy way for monitoring Triose Phosphate Isomerase activity in a variety of samples. In this kit, Triose Phosphate Isomerase converts dihydroxyacetone phosphate into glyceraldehyde-3-phosphate, which reacts with the Enzyme Mix and Developer to form a colored product with strong absorbance at 450 nm. The assay is simple, sensitive, and high-throughput and can detect Triose Phosphate Isomerase activity as low as 40 mU/mL.

Applications

Measurement of TPI activity in various tissues and cells. Analysis of glycolysis and pentose phosphate pathway and lipid metabolism.

Target Species

Human, Mammals

Usage

For research use only (RUO)

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Storage

Store kit at -20°C, protected from light.

Kit Components

TPI Assay Buffer 25 mL
TPI Substrate (Lyophilized) 1 vial
TPI Enzyme Mix (Lyophilized) 1 vial
TPI Developer (Lyophilized) 1 vial
NADH Standard (Lyophilized) 1 vial
TPI Positive Control (Lyophilized) 1 vial

Detection method Colorimetric

Compatible Sample Types

Animal tissues: Heart, Kidney, Liver, Muscle, etc
Cell culture: Adherent or Suspension cells
Human Serum, Human Plasma