CREATIVE BIOMART®
Assay Kit

Gluconokinase Activity Colorimetric Assay Kit

Product Information

Cat.No. Kit-0380

Product Overview

Gluconokinase Activity Assay Kit (Colorimetric) is used to determine GntK activity at 450 nm.

Description

Gluconokinase (GntK or ATP:D-gluconate 6-phosphotransferase or Gluconate Kinase; EC:2.7.1.12) is a key enzyme for Gluconate degradation pathway. In E. coli and yeast, Gluconokinase can convert gluconate into 6-Phosphate-D-Gluconate in an ATP dependent manner. Through Hexose Monophosphate Shunt (HMS) pathway, 6-Phosphate-D-Gluconate generates ribose-6-phosphate, which is critical for nucleotides and nucleic acid synthesis. Little is known of the mechanism of gluconate metabolism in humans despite its widespread use in medicine and consumer products. Gluconokinase Assay kit provides a quick and easy way for monitoring Gluconokinase activity in a variety of samples. In this kit, Gluconokinase converts Gluconate into 6-Phosphate-D-Gluconate in an ATP dependent manner. 6-Phosphate-D-Gluconate and ADP in turn undergoe a series of reactions to form an intermediate, which reacts with the probe to form a colored product with strong absorbance (OD 450 nm). The assay is simple, sensitive, and high-throughput adaptable. Detection limit:< 0.1mU.

Applications

Measurement of GntK in various samplesMechanistic study of Pentose Phosphate Pathway

Usage

For research use only (RUO)

Storage

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

Kit Components

GntK Assay Buffer 25 mLGntK Substrate 1 vialATP 1 vialGntK Converting Enzyme 1 vialGntK Probe 1 vialNADH Standard 1 vialGntK Positive Control 1 vial

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Detection method Colorimetric

Compatible Sample Types

Prokaryote such as: E.coliAnimal tissues such as liver, kidney, etc.Adherent or suspension cells.

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