

Gluconokinase Activity Colorimetric Assay Kit

Cat. No. Kit-0380 **Lot. No.** (See product label)

SPECIFICATION

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 <i>E. coli</i> 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 undergo 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 samples Mechanistic study of Pentose Phosphate Pathway
Usage	For research use only (RUO)
Storage	Store the kit at -20°C, protected from light.

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Kit Components	GntK Assay Buffer 25 mL GntK Substrate 1 vial ATP 1 vial GntK Converting Enzyme 1 vial GntK Probe 1 vial NADH Standard 1 vial GntK Positive Control 1 vial
Detection method	Colorimetric
Compatible Sample Types	Prokaryote such as: E.coli Animal tissues such as liver, kidney, etc. Adherent or suspension cells.

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