Glycerol-3-Phosphate Colorimetric Assay Kit

Cat. No. Kit-0348 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	G3P Assay Kit (Colorimetric) is used for measuring glycerol-3-phosphate using colorimetric methods.
Description	Glycerol-3-phosphate (G3P) is an important intermediate for all living organisms. Glycerol-3-Phosphate is produced either by glycerol via glycerol kinase or by dihydroxyacetone phosphate through glycerol-3-phosphate dehydrogenase. In response to cellular signals, glycerol- 3-phosphate can be utilized in multiple pathways: it can be further converted into glyceraldehyde-3-phosphate and enter glycolysis or rapidly generate NAD+ in brain or muscle tissues through the G3P shuttle or enter the lipid biosynthetic pathway. Recent studies have found that glycerol-3-phosphate is a novel regulator and plays a fundamental defense role in plant pathogenesis. G3P Assay Kit (Colorimetric) is a sensitive, fast and easy-to-use kit. In this assay, G3P is oxidized by G3P Enzyme Mix to form an intermediate, which reduces a nearly colorless probe to a colored product with strong absorbance at 450 nm. This assay kit can detect G3P less than 2 nmol/well and can be used for a variety of sample types.
Applications	Measurement of Glycerol-3-Phosphate in various tissues/cellsAnalysis of carbohydrate and lipid metabolism and cell signaling Drug screening
Usage	For research use only (RUO)
Storage	Store kit at -20°C, protected from light. Warm Assay Buffer to room temperature before use. Briefly centrifuge small vials prior to opening.

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Kit Components	G3P Assay Buffer 25 mlG3P Enzyme Mix (Lyophilized) 1 vialG3P Probe (Lyophilized) 1 vialG3P Standard (Lyophilized) 1 vial
Detection method	Colorimetric
Compatible Sample Types	Cell culture, Tissue samples

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