

Pyruvate Kinase Assay Kit II

Cat. No. Kit-0693 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Pyruvate Kinase Assay Kit is a quantitative colorimetric/fluorimetric determination of pyruvate kinase at OD570, FL530/585 nm.
Description	PYRUVATE KINASE (PK) is an enzyme involved in glycolysis. It catalyzes the transfer of a phosphate group from phosphoenolpyruvate (PEP) to ADP, yielding one molecule of pyruvate and one molecule of ATP. Pyruvate kinase deficiency, a genetic disease, is caused by a lack of pyruvate kinase and slows down the process of glycolysis. Pyruvate kinase is also involved in gluconeogenesis, a biochemical pathway in which the liver generates glucose from pyruvate and other substrates. Pyruvate Kinase Assay Kit provides a simple, direct and automation-ready procedure for measuring pyruvate kinase activity. In this assay PEP and ADP are catalyzed by pyruvate kinase to generate pyruvate and ATP. The color intensity of the reaction product at 570nm or fluorescence intensity at $\lambda_{ex/em} = 530/590\text{nm}$ is directly proportional to the pyruvate generated by the Pyruvate Kinase in the sample.
Applications	Direct Assays: PK activity levels in plasma, serum, and tissue samples. Drug Discovery/Pharmacology: effects of drugs on PK activity
Usage	For research use only (RUO)
Storage	Store all kit components at -20 °C. Shelf life of six months after receipt.
Kit Components	Developer 12 mL Dye Reagent 120 μ Co substrate 120 μ Pyruvate Standard (25 mM) 400 μ

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Detection method	Colorimetric, Fluorimetric
Compatible Sample Types	Cell, Plasma, Serum, Tissue
Features & Benefits	Sensitive and accurate. Linear detection range in 96-well plate: 0.1 to 50 U/L for colorimetric assays and 0.01 to 2 U/L for fluorimetric assays run at 25°C for 30 min.

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