

Pyruvate Kinase Assay Kit

Product Information

Cat.No.

Kit-0692

Product Overview

Pyruvate Kinase Assay Kit is used for measuring pyruvate kinase activity.

Description

Pyruvate kinase (PK, EC 2.7.1.40) 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. Lack of pyruvate kinase will slow down the process of glycolysis which causes the disease known as pyruvate kinase deficiency. We provides a simple, direct and automation-ready procedure for measuring pyruvate kinase activity in various biological samples such as blood, tissues, and culture cells, etc. In the assay, PEP and ADP were catalyzed by PK to generate pyruvate and ATP. The generated pyruvate is oxidized by pyruvate oxidase to produce color (at $\lambda = 570$ nm) and fluorescence (at Ex/Em = 535/587 nm). Since the increase in color or fluorescence intensity is proportional to the increase in pyruvate amount, the PK activity can be accurately measured. The kit detects 0.1 mU pyruvate kinase.

Target Species

Mammals

Usage

For research use only (RUO)

Storage

Store the kit at -20°C.

Kit Components

PK Assay Buffer 25 ml
OxiRed Probe 200 μ l
PK Enzyme Mix Lyophilized
PK Substrate Mix Lyophilized
PK Positive Control Lyophilized
Pyruvate Standard (100 nmol/ μ l) 100 μ l

Detection method Colorimetric, Fluorometric

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Compatible Sample Types

Biological Fluid, Cell Culture Supernatant, Food Sample, Growth Medium, Plasma, Serum, Tissue Culture Supernatant, Urine
