

Creatine Kinase Assay Kit

Product Information

Cat.No.

Kit-0231

Product Overview

Creatine Kinase Assay Kit is a colorimetric determination of creatine kinase activity at 340 nm.

Description

CREATINE KINASE (CK), also known as creatine phosphokinase (CPK), is an enzyme (EC 2.7.3.2) expressed predominantly in skeletal muscle, smooth muscle and the brain. The CK enzyme consists of two subunits, which can be either B (brain type) or M (muscle type), and hence three different isoenzymes: CK-MM, CK-BB and CK-MB. CK catalyzes the conversion of creatine to phosphocreatine, consuming adenosine triphosphate (ATP) and generating adenosine diphosphate (ADP) and the reverse reaction. CK is often determined routinely in emergency patients with chest pain and acute renal failure. Elevation of CK is an indication of damage to muscle and has been associated with injury, rhabdomyolysis, myocardial infarction, myositis, myocarditis, malignant hyperthermia and neuroleptic malignant syndrome, etc. Lower levels can be an indication of alcoholic liver disease and rheumatoid arthritis.

Applications

Direct Assays: CK in serum, plasma and other biological samples. Pharmacology: effects of drugs on CK activity.

Usage

For research use only (RUO)

Storage

Store all reagents at -20°C. Shelf life: 6 months after receipt.

Kit Components

Assay Buffer 12 mL Substrate Solution 1.0 mL Enzyme Mix 120 µL Calibrator 150 µL

Detection method Colorimetric

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Compatible Sample Types

Biological Sample, Plasma, Serum

Features & Benefits

Sensitive and accurate. Detection range: 5 to 300 U/L creatine kinase in 96-well plate assay. Convenient. The procedure involves adding a single working reagent, and reading the optical density at 20 min and 40 min at room temperature or 37°C. High-throughput. Can be readily automated as a high-throughput 96-well plate assay for thousands of samples per day
