

Alkaline Phosphatase Assay Kit

Product Information

Cat.No.

Kit-0079

Product Overview

Alkaline Phosphatase Assay Kit is a quantitative fluorimetric determination of alkaline phosphatase at FL360/450 nm.

Description

Alkaline phosphatase (ALP) catalyzes the hydrolysis of phosphate esters in an alkaline environment, resulting in the formation of an organic radical and inorganic phosphate. In mammals, this enzyme is found mainly in the liver and bones. Marked increase in serum ALP levels, a disease known as hyperalkalinephosphatasemia, has been associated with malignant biliary obstruction, primary biliary cirrhosis, primary sclerosing cholangitis, hepatic lymphoma and sarcoidosis. Simple, direct and automation-ready procedures for measuring ALP activity in serum are becoming popular in Research and Drug Discovery. This improved method utilizes 4-methylumbelliferyl phosphate that is hydrolyzed by ALP into a highly fluorescent product 4-methylumbelliferone. The rate of the fluorescence increase is directly proportional to the enzyme activity.

Applications

Direct Assays: ALP activity in serum, plasma and other sources. Characterization and Quality Control for ALP production. Drug Discovery: high-throughput screen for ALP modulators.

Usage

For research use only (RUO)

Storage

Store at -20°C. Shelf life of 2 years after receipt.

Kit Components

Reagent (pH 10.5) 14 mL 100x Standard 120 µL

Detection method Fluorimetric

Alkaline Phosphatase Assay Kit

Compatible Sample Types

Plasma, Serum

Features & Benefits

High sensitivity and wide linear range. Use 10 μ L sample. Detection limit of 0.02 U/L (20 min reaction). Homogeneous and simple procedure. Simple "mix-and-measure" procedure allows reliable quantitation of ALP activity within 20 minutes. Robust and amenable to HTS. All reagents are compatible with high-throughput liquid handling instruments.
