

Phosphate Assay Kit

Cat. No. Kit-2494 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Phosphate (Pi) is one of the most important ion species in nature. Phosphate is present in all biological systems. It is a major constituent in minerals and fertilizers, and is a component of industrial wastewater. Thus accurate determination of phosphate concentration finds numerous applications in pharmacology, biomedical research, clinical chemistry, industrial process monitoring and environmental monitoring. Simple, direct and automation-ready procedures for measuring phosphate concentration in biological and environmental samples are becoming popular. phosphate assay kit is designed to measure phosphate ion directly in samples without any pretreatment. The improved Malachite Green method utilizes the malachite green dye and molybdate, which forms a stable colored complex specifically with inorganic phosphate. The intensity of the color, measured at 620nm, is directly proportional to the phosphate concentration in the sample. The optimized formulation substantially reduces interference by substances in the raw samples.

Storage

4°C

Shipping

RT

Size

500 tests

Detection method

OD620nm (malachite green)

Compatible Sample Types

Serum, urine, saliva, sweat, tissue culture, food, environment etc

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Features & Benefits

Sensitive and accurate. Linear detection range 0.3 μM (0.0028 mg/dL) to 50 μM (0.47 mg/dL) phosphate in 96-well plate assay.

Simple and high-throughput. The procedure involves addition of a single working reagent and incubation for 30 min. Can be readily automated as a high-throughput assay for thousands of samples per day.

Improved reagent stability and versatility. The optimized formulation has greatly enhanced reagent and signal stability. Assays can be executed in cuvet or 96-well plate.

Low interference in biological samples. No pretreatments are needed. Assays can be directly performed on raw biological samples i.e., in the presence of lipid, protein and minerals.

Assay time

30 min

Sensitivity3 $\mu\text{g/dL}$ (0.3 μM)