



PiBlue™ Phosphate Assay Kits

The PiBlue™ Phosphate Assay Kit is based on a proprietary formulation of the malachite green dye. The PiBlue™ reagent forms a blue colored complex with free orthophosphate. The color formation from the reaction can be conveniently measured on a spectrophotometer (600 - 660 nm) or on a plate reader. The non-radioactive colorimetric assay kits have been optimized to offer superior sensitivity and prolonged shelf life. The assay is simple and fast, involving a single addition step for phosphate determination. Assays can be performed in tubes, cuvettes or multi-well plates. The assays can be conveniently performed in 96-well plates for high-throughput screening of enzyme inhibitors.

APPLICATIONS:

Phosphatase assay for released phosphate from phosphopeptide, protein or small molecule substrate [1].

Phospholipase or lipase assay for released phosphate from phospholipids [2].

Nucleoside triphosphatase (ATPase, GTPase etc) assay for released phosphate from nucleoside triphosphates (ATP, GTP, TTP, CTP etc).

Phytase assay for released phosphate from phytic acid.

Quantitation of phosphate in phospholipids [2], proteins and DNAs.

High-throughput drug discovery [1].

KEY FEATURES:

Reagent very stable. Due to our innovative formulation, no precipitation of reagent occurs. Therefore no filtration of reagent is needed prior to assays.

High sensitivity and wide detection range: detection of as little of 20 pmoles of phosphate and useful range between 0.4 μ M (20 pmoles) and 40 μ M (2,000 pmoles) phosphate in 96-well plate assay.

Fast and convenient: single reagent "mix-and-measure" assay allows quantitation of free phosphate within 30 minutes.

Compatible with routine laboratory and HTS formats: assays can be performed in tubes, cuvettes or microplates, on spectrophotometers and plate readers.

Robust and amenable to HTS: Z' factors of 0.7 to 0.9 are observed in 96-well plates. Can be readily automated on HTS liquid handling systems.

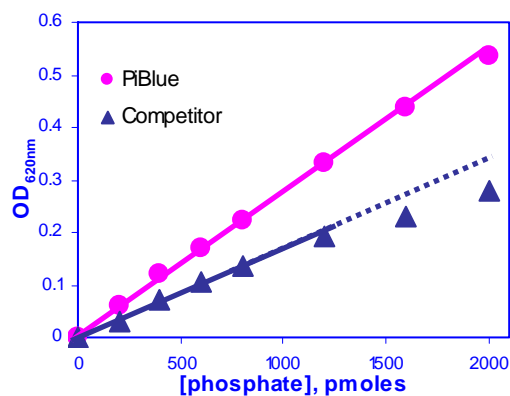
PRODUCT INFORMATION:

PiBlue™ Phosphate Assay Kit

POPB-500

Each kit is sufficient for 500 assays in 96-well plate. Kit includes:

- 1 x 50mL PiBlue™ Reagent
- 1 vial 1mL 1mM Phosphate standard



Standard Curve in 96-well plate in assay

REFERENCES:

[1]. Fisher DK and Higgins TJ (1994) A sensitive, high-volume, colorimetric assay for protein phosphatases. *Pharm Res.* 11:759-763.

[2]. Petitou M et al (1978) A simplified procedure for organic phosphorus determination from phospholipids. *Anal Biochem.* 91:350-353.