

Phosphate Assay Kit II

Product Information

Cat

Kit-0945

Common Name

Phosphate

Cat.No.

Kit-0945

Description

The Phosphate Assay Kit provides a fast and sensitive spectrophotometric method for the quantification of inorganic phosphate in solution and for phosphate released during ATPase or GTPase enzymatic reactions.

See our complete line of Fluorescence Microplate assays.

- Sensitivity of 2 to 150 μM phosphate
- Spectrophotometric microplate-based assay detects a change in absorbance maximum from 330 nm to 360 nm
- Continuous monitoring of phosphate generated by ATPase or GTPase activity

In the presence of inorganic phosphate, the 2-amino-6-mercapto-7-methylpurine riboside (MESG) substrate is converted by the purine nucleoside phosphorylase (PNP) enzyme to the ribose 1-phosphate and 2-amino-6-mercapto-7-methylpurine product. This enzymatic conversion of MESG results in a spectrophotometric shift in maximum absorbance from 330 nm for the substrate to 360 nm for the product.

Sensitivity of the assay is in the range of 2 to 150 μM inorganic phosphate (2 to 150 nanomoles phosphate in a 1 mL volume), and the reaction can be performed over a pH range of 6.5 to 8.5. The phosphate reaction is sufficiently fast and quantitative for use in stopped-flow kinetic experiments.



Phosphate Assay Kit II

Storage

Store in freezer (-5 to -30°C).

Shipping

Room Temperature

Size

100 assays

Materials Required but Not Supplied

Spectrophotometer

Detection method Colorimetric