



ProFoldin

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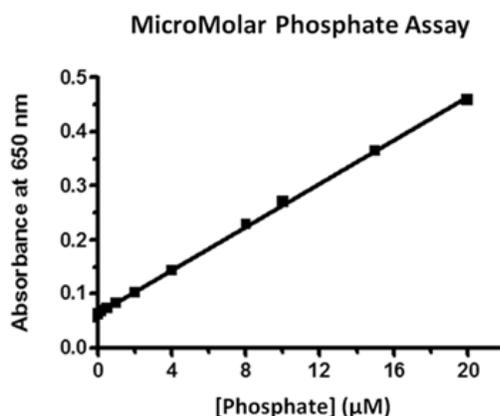
INSTRUCTIONS

ProFoldin MicroMolar Phosphate Assay Kit

CATALOG NUMBER MPA3000

INTRODUCTION

The MicroMolar Phosphate Assay Reagent is for measurement of 0.2 μM – 20 μM (micromolar) phosphate. The assay is based on the principle that phosphate interacts with molybdate and forms a blue complex with Malachite Green dye in an acidic solution. The phosphate amount is measured by detection of the light absorbance at 650 nm.



The assay reagent (catalog number MPA3000) includes 450 ml of reagent. It is for 3000 to 5000 assays using 96-well plates or more than 10,000 assays using 384-well plates. It can also be used for measurement of phosphate concentrations using cuvettes and a spectrophotometer.

PROTOCOLS

MEASUREMENT OF PHOSPHATE USING 96-WELL PLATES

Phosphate Standard Curve

1. Prepare standard phosphate solutions with a series of concentrations from 0.2 μM to 20 μM .
2. Mix 100 μl of the phosphate solution with 150 μl of the Assay Reagent in the wells of a 96-well plate for 5 min and read the light absorbance at 650 nm (A_{650}).

Data Analysis

Plot the A_{650} and the phosphate concentration [**phosphate**] to generate the linear standard curve.

$$A_{650} = a [\text{phosphate}] + b$$

Where the A_{650} values are from experimental data, the **a** and **b** values are from the linear fitting between the A_{650} values and the phosphate concentrations.



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UNKNOWN SAMPLES

Follow the same procedure to measure the A_{650} values from the unknown samples. Calculate the phosphate concentrations in the unknown samples using the A_{650} values from the unknown samples and the **a** and **b** values from the standard curve.

$$[\text{Phosphate}] = (A_{650} - b) / a$$

MEASUREMENT OF PHOSPHATE USING CUVETTES

When a 1 ml-cuvette is used for the measurement, 0.400 ml of a standard phosphate solution is mixed with 0.600 ml of the Assay Reagent in for 5 min and the light absorbance at 650 nm is measured.

RELATED PRODUCTS

NPA1000	NanoMolar Phosphate Assay Kit
PPD1000	MicroMolar Polyphosphate Assay Kit
NDA500	NanoGram DNA Assay Reagent
EPA001	Easy Protein Assay Reagent
HIS200	MicroMolar Histidine Assay Kit
CYS200	MicroMolar Cysteine Assay kit
AAK1000	Amino acid assay kit
PEP200	Peptide Assay Kit
PAA100K	MicroMolar Primary Amine Assay Kit
CAK1000	Coenzyme A Assay Kit
EDTA200	MicroMolar EDTA Assay kit
DTT200	MicroMolar DTT Assay kit
DAK1000	Detergent assay kit
SDS200	NanoGram SDS Assay Kit
CMC1000	Detergent Critical Micelle Concentration (CMC) Assay Kit
LIP1000	MicroGram Lipid Assay Kit
MAD100K	MicroMolar ADP Assay kit
MUD100K	MicroMolar UDP assay kit
MGD100K	MicroMolar GDP assay kit
MCA1000	MicroMolar Copper Assay Kit
NZA1000	NanoMolar Zinc Assay Kit
NMA1000	NanoMolar Nickel / Cobalt Assay Kit
CLA100	MicroMolar Chloride Assay Kit
MSA200	MicroMolar Sulfate Assay Kit
PST100	Penicillin Drug Stability Test Kit
PMX200	MicroGram Polymyxin Assay Kit
CPT200K	MicroMolar Cisplatin Assay Kit
OPT200	MicroMolar Oxaliplatin Assay Kit

For more information of concentration assays, please visit www.profoldin.com.
