

# Phosphate Assay Kit (Colorimetric) ab65622

[81 References](#) [5 Images](#)

### Overview

<b>Product name</b>	Phosphate Assay Kit (Colorimetric)
<b>Detection method</b>	Colorimetric
<b>Sample type</b>	Serum, Plasma, Other biological fluids, Tissue Extracts, Cell Lysate, Cell culture media
<b>Assay type</b>	Enzyme activity
<b>Sensitivity</b>	> 1 $\mu$ M
<b>Range</b>	0.001 mM - 1 mM
<b>Assay time</b>	2h 00m
<b>Product overview</b>	<p>Phosphate Assay Kit (Colorimetric) (ab65622) provides an easy, quick and simple method for measuring phosphate levels.</p> <p>The phosphate assay protocol uses a proprietary formulation of malachite green and ammonium molybdate which forms a chromogenic complex with phosphate ion giving an intense absorption band around OD = 650nm.</p> <p>Phosphate assay protocol summary:</p> <ul style="list-style-type: none"> <li>- add reaction mix to sample and standard wells</li> <li>- incubate for 30 min</li> <li>- analyze with a microplate reader</li> </ul>
<b>Notes</b>	<p>This product is manufactured by BioVision, an Abcam company and was previously called K410 Phosphate Colorimetric Assay Kit. K410-500 is the same size as the 500 test size of ab65622.</p> <p>This assay can be used with biological fluids but also inorganic samples such as algal blooms and water from run-off areas of high fertilizer use.</p>
<b>Platform</b>	Microplate reader

### Properties

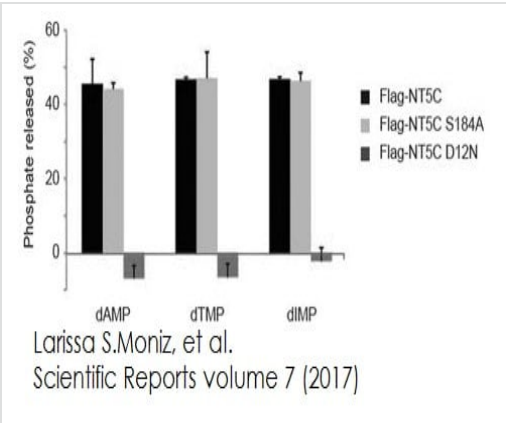
**Storage instructions** Store at room temperature. Please refer to protocols.

Components	500 tests
Phosphate Reagent	1 x 15ml
Phosphate Standard	1 x 500µl

Relevance

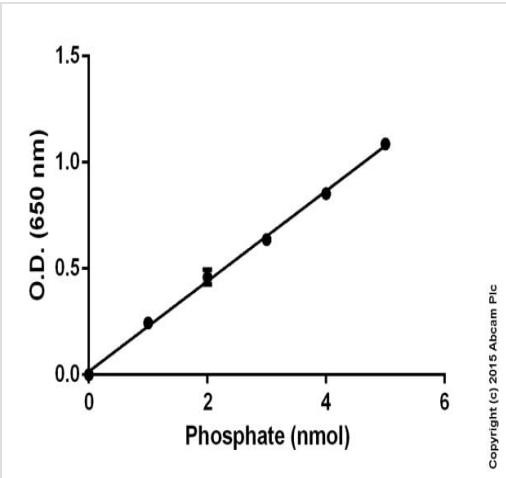
Phosphate is one of the most important of the inorganic ions in biological systems. It functions in a variety of roles. One of the most important roles is as a molecular switch, turning enzyme activity on and off through the mediation of the various protein kinases and phosphatases in biological systems. Phosphate is also of great importance in mineralization processes and is a primary stimulus of algal blooms frequently found in bodies of fresh water, due to run-off from areas of high fertilizer use.

Images



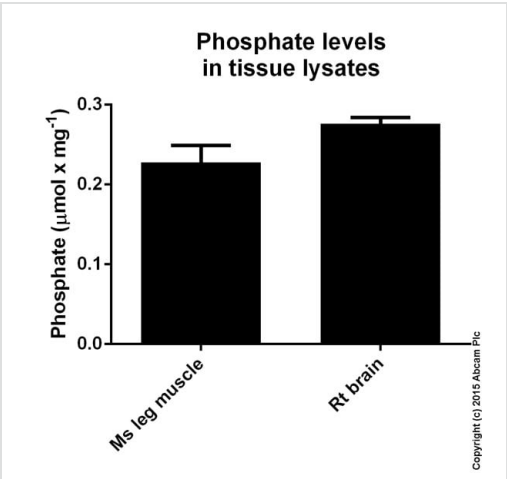
Functional Studies - Phosphate Assay Kit  
(Colorimetric) (ab65622)  
Larissa S.Moniz, et al., Scientific Reports volume 7, Fig 5, Article number: 39985 (2017)

Immunoprecipitates of Flag-NT5C ectopically expressed in HEK293 cells were incubated with 5 mM of the indicated nucleotides. Phosphate release was measured using a malachite green colorimetric assay (ab65622) and expressed as a percent of total nucleotide. The experiment was performed in duplicate and repeated 3 times independently. Error bars are sem.



Functional Studies - Phosphate Colorimetric Assay  
Kit (ab65622)

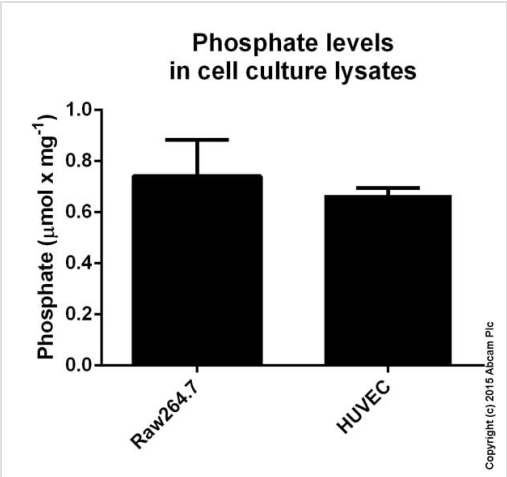
Standard curve: mean of duplicates (+/- SD) with background reads subtracted



Functional Studies - Phosphate Colorimetric Assay  
Kit (ab65622)

Phosphate measured in tissue lysates showing quantity (μmol) per mg of extracted protein.

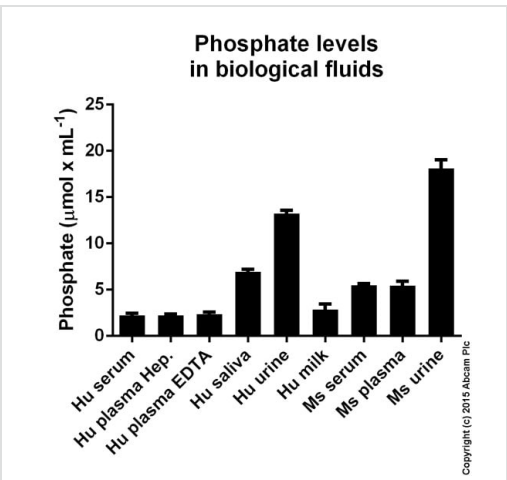
Protein concentration for samples varied from 9 mg/mL to 14 mg/mL. Samples were diluted 400-4000 fold.



Functional Studies - Phosphate Colorimetric Assay  
Kit (ab65622)

Phosphate measured in cell culture lysates showing quantity (μmol) per mg of extracted protein.

Samples with the concentration of 1.3e7 cells/mL were used. Samples were diluted 400-4000 fold.



Functional Studies - Phosphate Colorimetric Assay  
Kit (ab65622)

Phosphate measured in biological fluids showing quantity (μmol) per mL of tested sample. Samples were diluted 100-1000 fold.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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