



Phosphorus Test Kit

REF	Pack Size	Reagent 1	Reagent 2 (Std)
PHOLMS01	25x1 ml	25x1 ml	1x2 ml

INTENDED USE

Phosphorous reagent is used for quantitative estimation of phosphorous concentration in human serum or plasma

CLINICAL SIGNIFICANCE

Phosphorus is an essential mineral for tissue bone formation and is required by every cell in the body for normal function. Approximately 85% of the body phosphorus is found in bone and in teeth. Low levels of phosphorus can be caused by hypervitaminosis D, primary hyperparathyroidism, renal tubular disorders, antacids or malabsorption. High level of phosphorus can be caused by diet, bone metastasis, liver disease, alcohol ingestion, diarrhoea and vomiting. Clinical diagnosis should not be made on a single test result, it should integrate clinical and other laboratory data

METHOD: Photometric, End Point, UV.

TEST PRINCIPLE

Ammonium molybdate + Sulfuric Acid $\xrightarrow{\text{Phosphorus}}$ Phosphomolybdate complex

KIT CONTENTS/COMPONENTS

Reagent 1- Phosphorous Reagent
Reagent 2- Std. 5 mg/dl

MATERIAL REQUIRED BUT NOT PROVIDED

Laboratory instrumentation, spectrophotometer UV/VIS with thermostatic cuvette holder or clinical chemistry analyzer: semi-automated, calibrated micropipettes, glass or high-quality polystyrene cuvettes, test tubes/rack, heating bath, controls, saline.

SAFETY PRECAUTIONS AND WARNINGS

- 1.For in-vitro diagnostics use only.
- 2.Do not pipette by mouth. Avoid contact with skin and eyes. If spilt thoroughly wash affected area with water.
- 3.Do not use the reagent after the expiration date printed on the kit.

REAGENT PREPARATION, STORAGE AND STABILITY

The reagent is stable up to the end of the indicated date of expiry on the vial label, if stored at 2 - 8°C, protected from light and contamination is avoided. Do not freeze the reagent.

REAGENT DETERIORATION

- 1.Discard the reagent if absorbance exceeds 0.4 at 340 nm against distilled water.
- 2.Keep the Standard vial plugged after use, to avoid deterioration.

SPECIMEN

Use fresh unhaemolysed serum. Avoid use of fluoride, citrate, oxalate and EDTA as anticoagulant. Serum is stable for 7 days at 2-8 °C and 6 months at -20°C.

PROGRAM

Reaction Mode	End point
Wavelength	340 nm
Light Path	10 mm
Reagent Volume	1000 µl
Standard Volume	10 µl
Sample Volume	10 µl
Incubation	5 min. at 37°C
Standard Concentration	5 mg/dl
Linearity	15 mg/dl

Bring all contents of the kit to room Temperature prior to use.

PROCEDURE

Addition Sequence	Blank	Standard	Sample
Reagent	1000 µl	1000 µl	1000 µl
Distilled Water	10 µl	-	-
Standard	-	10 µl	-
Sample	-	-	10 µl

Mix & incubate for 5 min. at 37°C. Read absorbance of standard and sample against reagent blank.

CALCULATION:

Concentration (C) of Phosphorus in the sample:

$$C = \frac{\text{Absorbance of sample}}{\text{Absorbance of standard}} \times 5 \text{ mg/dl (Conc. Of std.)}$$

NORMAL VALUES

2.7 - 4.5 mg/dl

LIMITATIONS

If the value exceeds 15mg/dl, dilute the sample with 0.9% saline solution rerun and result multiplied by dilution factor.

QUALITY CONTROL AND CALIBRATION

It is suggested to perform internal quality control with assayed normal and assayed abnormal, to confirm the validity of the test and assure the accuracy of patient result. Using the recommended calibrator or the Standard included, calibrate the assay.

WASTE DISPOSAL

This Product is made to be used in professional laboratories.

HIGHLIGHTS

- 1.Storage condition mentioned on the kit is to be used.
- 2.Before testing bring the reagents to the R.T.
- 3.Avoid reagents contamination.
- 4.Every time use new pipette-tips for pipetting out the reagents.
- 5.These Reagent kits meant for laboratory/professional use only, not for Drug use.

REFERENCE

Tietz N.W., ed. Clinical Guide to laboratory Tests, 3rd ed. Philadelphia, Pa: W.B. Saunders, 1995:466;487
Lords Data File.

REF	Catalog No.		Contain Sufficient for test
LOT	Batch No.		Instruction for use
	Manufacturing Date		In-vitro Diagnostics
	Expiry Date		Storage temperature
	Manufacturer		

IFU/PHO/01 Rev.: 02; Rev Dated.: 22/07/2024

