

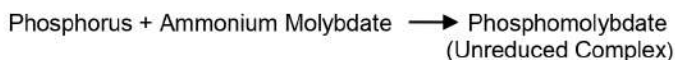
**Reagent kit for quantitative estimation of Phosphorus in Serum or Urine.**

**DIAGNOSTIC SIGNIFICANCE:**

Mainly Phosphorus is combined with calcium & found in bones & teethes. It is also found in every cell of the body. Increased levels of serum Phosphorus are found in Chronic nephritis, hypoparathyroidism & hypervitaminosis 'D'. Decreased levels are found in hyperparathyroidism, Rickets, Steatorrhea & Vitamin D deficiency.

**PRINCIPLE:**

Inorganic Phosphorus ions in presence of acid medium react with ammonium molybdate to form a complex whose intensity is directly proportional to the amount of inorganic phosphorus present in the sample and measured at 340 nm.



**SPECIMEN COLLECTION:**

Serum must be use. Also use Urine. **Plasma is not recommended.**

**Note:** Acidify the Urine with few drops of Conc. HCL & dilute in the proportion of (1+19) and multiply the result by 20.

**KIT PRESENTATION:**

Pack Size	25 Test	50 Test	2 X 50 ml
Phosphorus Reagent	25 X 1 ml	50 X 1 ml	2 X 50 ml
Phosphorus Std. (5 mg/dl)	1 X 01 ml	1 X 01 ml	1 X 02 ml

**REAGENT STORAGE & STABILITY:**

Phosphorus Reagent and Standard are stable at 2-8°C until the expiry date indicated on the label.

**PRECAUTIONS:**

All the glass wares should be decontaminated by soaking in 6N HCL for 4-6 hours. Rinse the glass wares thoroughly with distilled water prior to use.

**ASSAY PARAMETER:**

Reaction : End point	Sample Volume : 10 µl
Wavelength : 340 nm	Reagent Volume : 1.0 ml
Zero Setting : Reagent Blank	Standard Conc. : 5 mg/dl
Incub. Temp. : R T	Linearity : 20 mg/dl
Incub Time : 5 minutes	Unit : mg/dl

**PROCEDURE:**

Pipette into TT	Blank	Std	Test
Phosphorus Reagent	1.0 ml	1.0 ml	1.0 ml
Phosphorus Standard	--	10 µl	--
Sample (Test)	--	--	10 µl

Mix and incubate at RT for 5 minutes. Read absorbance of Standard (S) and Test (T) after 5 minutes against reagent blank at 340 nm.

**CALCULATION:**

Phosphorus conc. (mg/dl) = Abs T ÷ Abs S X 5

**NORMAL VALUES:**

- Children : 4.0 To 7.0 mg/dl
- Adults : 2.5 to 5.0 mg/dl
- Urine : 0.3 to 1.0 gm/24 hours

**LINEARITY:**

This method is linear up to 20 mg/dl. For samples with values higher than 20 mg/dl dilute the samples with Distilled Water and repeat the assay. Apply proper dilution factor.

**REFERENCES:**

- Daly J.A. And Ertingshausen G.Clin. Chem. 18 (1972) 263-265
- Gamst. O and Try K. Scand J. Clin. Lab. 40 (1980) 483-486.

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