ESTROM Phosphorus
(Molybdate Method)

This reagent kit is for in-vitro use to measure the concentration of Inorganic Phosphorus in serum.

PRINCIPLE:
Inorganic Phosphorus present in the sample reacts with Ammonium Molybdate in an acidic medium to give Phospho Molybdate, which leads to increase in absorbance at 340 nm. This is proportional to the Inorganic Phosphorus present in the sample

$7H_3PO_4 + 12\ [Mo_7O_{24}]^{-6} \longrightarrow 7H_3PO_4\ [MoO_3]_{12} + 36O^{-2}$

CLINICAL SIGNIFICANCE:
In clinical conditions, like vitamin D deficiency, malabsorption syndromes (celiac disease, sprue), hyperinsulinism, steatorrhea, primary hypophosphatemia, rickets fanconi's syndrome, hyperparathyroidism, serum inorganic phosphorus level serves as important parameter for diagnosis. Increased phosphorus level also observed mellitus, renal disease, bone fracture recovery, paget's disease and acromegaly.

SPECIMEN COLLECTION:
Serum sample is essential.

PRECAUTION:
Reagent is for invitro diagnostic use only

REAGENTS: **4 x 25**

1. Reagent 4
2. Standard: 5 mg/dl 1

Ready to use reagent.

REAGENTS STABILITY AND STORAGE:
All the reagents are stable up to expiry date indicated on the bottle label when stored at 2-8°C. Protect from light.

GENERAL INSTRUMENT PARAMETERS:

Reaction Type	: End Point
Wavelength	: 340 nm
Temperature	: 30°C
Reagent	: 1000 µl
Sample Volume	: 10 µl
Standard Concentration	: 5 mg/dl
Units	: mg/dl
Incubation	: 5 minutes at R.T
Zero Setting	: Reagent Blank

PROCEDURE:

Pipette into test tubes	Blank	Standard	Test
Reagent	1 ml	1 ml	1 ml
Standard	-	10 µl	-
Sample	-	-	10 µl

Mix well. Incubate for 5 minutes at room temperature. Read absorbance of standard and test against reagent blank at 340 nm.

CALCULATION:

$$\frac{\text{Abs. of Test}}{\text{Abs. of Std}} \times \text{Conc. of Standard} = \text{mg/dl of Serum Phosphrous}$$

EXPECTED VALUES:

	Normal level
Children	: 4.0 – 7.0 mg/dl
Adults	: 2.5 – 5.0 mg/dl

* It is recommended that each laboratory establishes its own normal range.

LINEARITY:
This method is linear up to 15 mg/dl. For sample values higher than 15 mg/dl, dilute the sample with 1:1 distilled water and repeat the assay. Multiply the final result by 2 (dilution factor).

BIBLIOGRAPHY:

- Daly J.A., and Ertingshausen G. Clin. Chem. 18 (1972) 263-265.
- Gamst. O and Try scand J. Clin, Lab 40 (1980) 483-48

Angstrom Biotech Pvt.Ltd.
G1 - 1035, RIICO Industrial Area
Phase - III, Bhiwadi,
Alwar, Rajasthan.
Pin Code - 301019
Email: info@angstrombiotech.in
Website: www.angstrombiotech.in.
Customer Care Number - 9599194831

⚠	Attention,see instructions for use		Consult Instructions For Use
IVD	For in vitro diagnostic use only	REF	Catalog #
2°C 8°C	Store between 2-8°C	LOT	Lot Number
	Do not use if package is damaged		Date of Manufacturing
	Manufacturer		Use by