



# Phosphorus

**Liquid Stable Reagent**  
**Colorimetric Method**  
**Store at : 2-8°C**

## PRINCIPLE

Inorganic Phosphorus forms a colored complex when treated with Ammonium molybdate which is reduced by hydroxylamine to molybdenum bleu.

## REFERENCE VALUES

Serum	Adults	2.5 – 5.0 mg/dl 0.8-1.45 mmol/l
	Children	4.0 – 7.0 mg/dl 1.29 – 2.26 mmol/l
Urine	32.2 mmol/24 h (1 g/24 h)	

## SAMPLES

Serum or heparinized plasma.  
Urine diluted 1/5 or 1/10 with distilled water

## REAGENTS

**R<sub>1</sub> :**

Ammonium molybdate	4.5 g/l
Detergent and conservator	S.Q.

**R<sub>2</sub> :**

Hydroxylamine	0.1 mol/l
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**R<sub>3</sub> :**

Sodium hydroxyl	1.9 mol/l
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**R<sub>4</sub> :**

Standard	5.0 mg/dl
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The reagent is ready to use and stable at room temperature until the expiry date stated on the label.

## PROCEDURE

Wavelength	650 nm
Zero adjustment	Reagent
Cuvette	1 cm light path
Method	Endpoint - Increasing

	Blank	Standard	Sample
Sample	-	-	0.1 ml
Standard	-	0.1 ml	-
R1 Solution	1.0 ml	1.0 ml	1.0 ml
R2 Solution	1.0 ml	1.0 ml	1.0 ml

Mix and after 2 minutes incubation (do not worry about turbid)

	Blank	Standard	Sample
R3 Solution	1.0 ml	1.0 ml	1.0 ml

Mix and after 5 minutes incubation read absorbance (O.D) of sample and standard against blank. The color is stable for 30 minutes at room temperature.

## CALCULATION

$\frac{\text{O.D Sample}}{\text{O.D Standard}} \times \text{Standard concentration}$

m g/dl phosphorus X 0.323 = mmol/l phosphorus

## NOTE

- Sample and reagent volumes may be varied as long as the ratio is maintained.
- Do not use hemolized serum.
- If sample is lipemic make a serum blank.
- Use disposable materials.






## LINEARITY

Up to 15 mg/dl.

## BIBLIOGRAPHY

- Baginski (F.S), Foa (P.P) and Zak (B)- Clin. Chem. Acta, 15, 155-158 (1967).

## The following symbols are used on labels

-  **For in vitro diagnostic use**
-  **Use day (last day of the month)**
-  **Temperature limitation**
-  **Batch code**
-  **Code**