



Phosphorus

Stable Liquid Reagent
U.V determination
Store at : 2-8°C

PRINCIPLE

Inorganic Phosphorus forms a colored complex when treated with Ammonium molybdate in sulfuric medium, the complex absorption is maximal in ultraviolet and its formation is followed at 340 nm.

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)	

It is recommended that each laboratory should assign its own normal range.

SAMPLES

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

REAGENTS

R₁ :

Ammonium molybdate	0.4 mmol/l
Sulfuric acid	200 mmol/l
Detergent	S.Q.

R₂ :

Standard	5 mg/dl
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The reagent is ready to use and stable at 2–8°C until the expiry date stated on the label.

PROCEDURE

Wavelength	340 nm
Zero adjustment	Reagent
Cuvette	1 cm light path
Method	Endpoint - Increasing

If the absorbance of the working reagent is higher than 0.4 at 334nm the reagent can not be used.

	Standard	Sample
Sample	-	10 µl
Standard	10 µl	-
Reagent	1.0 ml	1.0 ml

Mix and after 2 minutes incubation, read optical densities (O.D). The color is stable for 30 minutes at room temperature.

CALCULATION

Phosphorus (mg/dl) =
 $\frac{\text{O.D Sample}}{\text{O.D Standard}} \times \text{Standard concentration}$

SPECIFICATION

Bilirubin 0.15g/l, lipid 10g/l, glucose 10g/l and ascorbic acid 0.5g/l do not interfere with the assay up to the given levels

NOTE.

- If sample is lipemic make a serum blank.
- Use disposable materials.
- Solution R1 contains sulfuric acid. Avoid ingestion or contact with skin.

LINEARITY

Up to 15 mg/dl.

PRESENTATION

4 X 60 ml Cat No 2601 240 Tests

BIBLIOGRAPHY

- Daly J.A., Ertingshausen G, Clin. Chem. 18:263 (1972).
- Weissman N. Pillegi V.J.: Inorganic Ions. In Clinical Chemistry-principles and Technics, 2nd ed. R.J. Henry, D.C. Cannon, J.W. Windelman, Editors, Harper & Row, Hagerstow (MD), (1974), pp. 726, 728.
- Young, D.S. Pestaner L.C. Gibberman V : Effects of drugs on clinical laboratory tests. Clin. Chem. 21: 1 D (1975).

The following symbols are used on labels



For in vitro diagnostic use



Use day (last day of the month)



Temperature limitation



Batch code



Code



Harmful