PHOSPHORUS

METHOD – UV-END POINT
PRODUCT CODE – LP01

ANAMOL
THE ORIGINAL MAKERS

INSTRUCTIONS FOR USE

INTENDED USE: Test for estimation of Phosphorus in serum / plasma using UV-End Point method.

SUMMARY AND PRINCIPLE

1. The Inorganic phosphate is the fraction of clinical interest since its levels are closely tied to bone metabolism, renal function, vitamin D levels and parathyroid hormone status.
2. *Phosphorus* is a single ready to use reagent kit for quantitative determination of phosphorus in human serum and plasma based on UV - end point method using ammonium molybdate.

Phosphorus + Ammonium Molybdate → Ammonium-phosphomolybdate complex

PREPARATION, STORAGE & STABILITY

Phosphorus is a ready to use reagent. The kit is stable till the expiry date indicated on the label.

TEST PARAMETERS

Name	Phosphorus	Reagent Volume	1000 µl
Reaction Type	End Point	Sample Volume	10 µl
Wavelength	340 nm	Temperature	37 °C
Flow Cell Temp.	37 °C	Incubation Time	5 min
Blank setting	Reagent	Standard Conc.	5 mg/dL
Blank abs. limit	< 0.300	Linearity	20 mg/dL

ASSAY PROCEDURE

	Blank	Standard	Test
Reagent	1000 µl	1000 µl	1000 µl
Standard	NA	10 µl	NA
Sample	NA	NA	10 µl
Mix the reagent and sample/standard in the above mentioned ratio.			
Incubate the assay mixture for 5 mins at 37 ^{0}C.			
Aspirate reaction mixture into flow cell and measure the absorbance.			
The final colour is stable for 8 hours if not directly exposed to light.			

CALCULATION

$$\text{Phosphorus (mg/dL)} = \frac{\text{Abs. of sample} \times 5}{\text{Abs. of standard}}$$

COMPONENTS OF REAGENT

Component	Concentration
Ammonium Molybdate	0.4 mmol/L
Sulphuric Acid	0.25 mmol/L
Stabilizers, inactive ingredients and surface active agents.	-

SPECIMEN COLLECTION & PRESERVATION

Blood should be collected in a clean dry container. Serum, heparinized or EDTA plasma can be used. Avoid haemolysed sample as haemolysis interferes with assay. Phosphorus in serum/ plasma is stable for 7 days at 2-8 ^{0}C and 3 weeks at -20 ^{0}C.

REFERENCE VALUES FOR NORMAL PEOPLE

Adults: 3.0 – 5.0 mg/dL (0.87 – 1.45 mMol/L).
Children: 4.0 – 7.0 mg/dL (1.29 – 2.10 mMol/L).

NOTE

1. The reference values should be used as guide only.
2. The test is not influenced by bilirubin values upto 40 mg/dL.
3. Haemolysis interferes as free and organic phosphates are released from RBC leading to false elevated results.

QUALITY CONTROL

1. Inclusion of a normal value and abnormal value chemistry control serum in each test run ensures optimum quality control.
2. Consistent use of same type and methodology of control serum provides between run precision and accuracy data for Phosphorus. We recommend to produce such data on daily basis for greater accuracy in assay system which include reagents, instrument, apparatus and operator.

PRECAUTIONS

1. Contaminated glassware is the greatest source of error. Disposable plastic wares are recommended for the test.
2. Discard the working reagent if its absorbance is >0.300 against distilled water at 340 nm.
3. If the phosphorus value exceeds 20 mg/dL then dilute the specimen suitably with normal saline and repeat the assay. In such case the assay value should be multiplied by the dilution factor to obtain correct phosphorus value.
4. Strong lipaemic and haemolysed sera should not be used.

BIBLIOGRAPHY

1. Tietz NW, ed. Clinical Guide to Laboratory Tests, 3rd ed. Philadelphia, Pa : W.B. Saunders, 1995 : 486 - 487.
2. Burtis CA, Ashwood ER, eds. Tietz Textbook of Clinical Chemistry, 2nd ed. Philadelphia, PA : W.B. Saunders, 1994 : 1909.
3. Gamst, O. and Try, K., Scand. J. Clin Lab. Invest. 40, 1980.
4. Amador, E and Urban, J., Clin. Chem. 18, 60 (1977).

SYMBOLS: Read Instruction for use | IVD In Vitro Diagnostic Use Only | Manufactured by | Expiry Date | Storage Temperature

ANAMOL LABORATORIES PVT. LTD.
61, Genesis Industrial Township, Kolgaon,
Palghar – 401 404. India.
Customer Care & WhatsApp: +91-9823388695.

admin@anamollabs.com
exports@anamollabs.com
www.anamollabs.com

ISO 9001 : 2015
ISO 13485 : 2003
GMP
CE