CORALYZER
System Pack

Phosphorus Kit

(Molybdate U.V. Method)

For the determination of Inorganic Phosphorus in serum.
(For Invitro Diagnostic Use Only)

Summary
Phosphorus is mainly combined with calcium and is found in the bones. Approximately 15% exists as inorganic phosphorus or phosphate esters. It is involved in the carbohydrate metabolism and is a component of many other substances. Increased levels are found in hypoparathyroidism, renal failure, bone metastatis and liver diseases. Decreased levels are found in hyperparathyroidism, rickets and Vitamin D deficiency.

Principle
Phosphate ions in an acidic medium react with ammonium molybdate to form a phosphomolybdate complex. This complex has an absorbance in the ultraviolet range and is measured at 340 nm. Intensity of the complex formed is directly proportional to the amount of inorganic phosphorus present in the sample.

Phosphorus + Ammonium Molybdate ⟶ **Phosphomolybdate complex**

Normal reference values

Serum	Adults	:	2.5 - 5.0 mg/dl
	Children	:	4.0 - 6.5 mg/dl

It is recommended that each laboratory establish its own normal range representing its patient population.

Contents			
Coralyzer 100 System Packs	**40 ml**	**80 ml**	**240 ml**
L1 : Acid Reagent	32 ml	2 x 32 ml	6 x 32 ml
L2 : Molybdate Reagent	8 ml	16 ml	2 x 24 ml

Coralyzer 200 System Packs	**40 ml**	**200 ml**	**300 ml**
L1 : Acid Reagent	32 ml	4 x 40 ml	6 x 40 ml
L2 : Molybdate Reagent	8 ml	4 x 10 ml	4 x 15 ml

Storage / stability
Contents are stable at R.T. (25 - 30^{0}C) till the expiry mentioned on the labels.

Reagent preparation
Reagents are ready to use.

Sample material
Serum. Inorganic phosphorus is reported to be stable in serum for 7 days at 2 - 8^{0}C.

Calibration
Calibrator is recommended for calibration of this assay.

Linearity
This procedure is linear up to 20 mg/dl.

Note
Hemolysis interferes with the test.

References
Fiske, C.H., Subbarow, Y., (1925) J. Biol. Chem. 66 : 375
Goodwin, J.F., (1970) Clin. Chem. 16(19) : 776

Programming on	CORALYZER 100/200
Item	PHOSPHORUS
Full Name	PHOSPHORUS
Test Method	End Point
Base Information	
Unit	mg/dl
Filter	340 nm
Sub. Filter	670 nm
Decimal	xx.xx
High pollute	No
Reagent Blank	
Blank Medium	Reagent
Blank Value	0
Blank Low	0
Blank High	1
Sample	
Sample Volume	3
Dilution Times	1
Range Setup	
Reagent	
Rgt. 1 Volume	240
Rgt. 2 Volume	60
Linearity	20
Read data for check	
Assistant Start	NONE
Assistant End	NONE
Range Low	0
Range High	2
Test Point Start	32
Test Point End	33
Standard	
Number of standard	1
Factor	1
Correct Factor	1
Standard Cup	User Defined
Conc.	See Calibrator

Manufactured by :
Coral Clinical Systems
A Division of Tulip Diagnostics (P) Ltd.
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