Serum Phosphorus Microplate Assay Kit

Catalog # AS0108

Detection and Quantification of Serum Phosphorus Content in Serum Samples.

This instruction must be read in its entirety before using this product.

For research use only, Not for use in diagnostic procedures.

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I. INTRODUCTION

Phosphorus is an important part of several of your body's processes. It helps with bone growth, energy storage, and nerve and muscle production. Many foods, especially meats and dairy products, contain phosphorus, so it's usually easy to get enough of this mineral in your diet. Most of your body's phosphorus is contained in your bones and teeth. However, some is in your blood. Hyperphosphatemia is when you have too much phosphorus in your blood. Hypophosphatemia is the opposite: having too little phosphorus. Various conditions, including liver disease and vitamin D deficiency, can cause your blood phosphorus level to become too high or too low.

Phosphorus Microplate Assay Kitprovides a sensitive colorimetric means to directly measurephosphorus concentration in various samples. Phosphorus concentrationis based on the reaction of phosphorus with ammonium molybdate toform a blue colored product. The color intensity at 620 nm is directly proportional to phosphorusconcentration in the sample.

II.KIT COMPONENTS

Component	Volume	Storage
96-Well Microplate	1 plate	
Assay Buffer	30 mlx 4	4 °C
Reaction Buffer	5 mlx 1	4 °C
Dye Reagent	Powderx 1	4 °C
Standard (0.4mmol/L)	1 mlx 1	4 °C
Technical Manual	1 Manual	

Note:

Dye Reagent: add 5 ml distilled waterto dissolve before use.

III. MATERIALS REQUIRED BUT NOT PROVIDED

1. Microplate reader to read absorbance at 620 nm
2. Distilled water
3. Pipettor
4. Pipette tips
5. Mortar
6. Centrifuge
7. Timer

IV. SAMPLE PREPARATION

1.For serumand other biological fluidssample

Add 100 µlsampleand 900 µlAssay bufferinto the microcentrifuge tube, mix, centrifuged at 8,000g 25 °C for 10 minutes, take the supernatant into a new centrifuge tube for detection.

V. ASSAY PROCEDURE

Add following reagents intothe microplate:

Reagent	Blank	Standard	Sample
Reaction Buffer	50 µl	50 µl	50 µl
Dye Reagent	50 µl	50 µl	50 µl
Distilled water	100µl	--	--
Standard	--	100µl	--
Sample	--	--	100µl
Mix, wait for 10 minutes, measured at 620 nm and recordthe absorbance.			

VI. CALCULATION

1. According to the serum sample

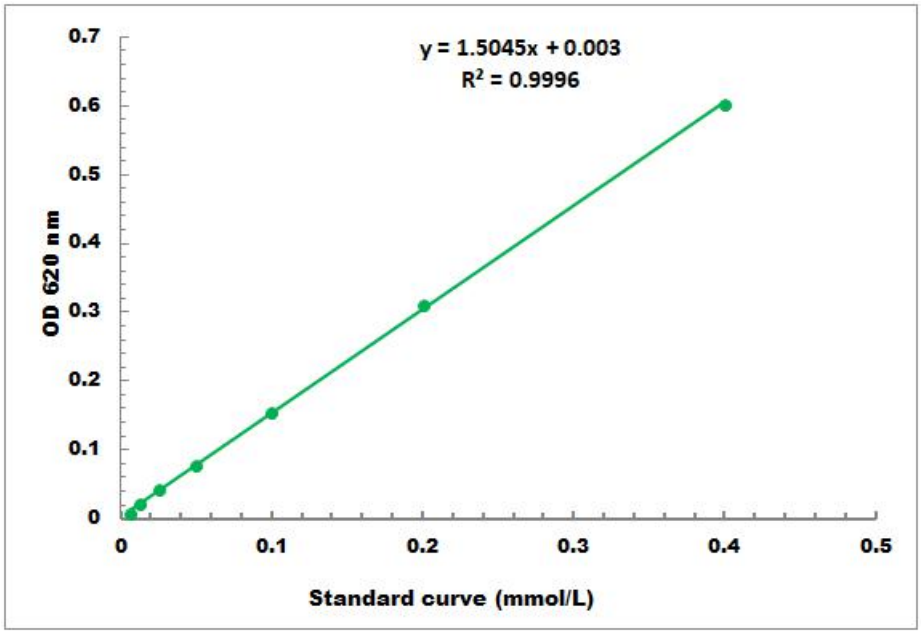
Phosphorus(mmol/L) $=C_{Standard} \times (OD_{Sample} - OD_{Blank}) / (OD_{Standard} - OD_{Blank}) \times 10$

$= 4 \times (OD_{Sample} - OD_{Blank}) / (OD_{Standard} - OD_{Blank})$

$C_{Standard}$: the concentration of Standard, 0.4mmol/L.

VII. TYPICAL DATA

The standard curve is for demonstration only. A standard curve must be run with each assay.



Detection Range: 0.01mmol/L-0.4mmol/L

VIII. TECHNICAL SUPPORT

For troubleshooting, information or assistance, please go online to www.sabbiotech.cn or contact us at techcn@signalwayantibody.com

IX. NOTES