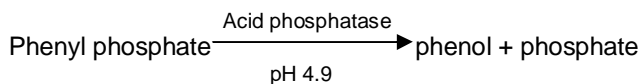


ACID PHOSPHATASE (EC 3. 1. 3. 2)

Colorimetric Method

50 Tests

PRINCIPLE :



The liberated phenol is measured colorimetrically in the presence of 4- aminophenazone and potassium ferricyanide .

SAMPLE :

Serum, Hemolysis will interfere . Do not use plasma. Serum sample can be stored at + 4° C by adding 10 µl acetic acid 3 mol/L per mL of serum.

NORMAL VALUES :

Total Acid Phosphatase : UP to 12 U / L .
Prostatic Acid Phosphatase: UP to 5 U / L .

REAGENTS :

1.	Standard phenol	319 µmol / L
2.	Substrate	20 mmol / L
3.	Buffer pH 4.9	50 mmol / L
4.	Tartrate	200 mmol / L
5.	4-Aminophenazone	50 mmol / L
6.	Color Reagent : Potassium ferricyanide	200 mmol / L
	Enzyme stabilizer Acetic Acid	3 mol/L

STABILITY :

The reagents are stable up to the expiry date specified when stored at +2 to +8 °C .

PROCEDURE :

Working Reagent : Mix equal volumes of reagent 2 and 3.

	Standard (mL)	Total (mL)	Non Prostatic (mL)	Blank (mL)
Reagent 1	0.1	-	-	-
Serum	-	0.1	0.1	-
Reagent 4	-	-	0.1	-
Working Reagent	0.50	0.5	0.5	0.5
Incubate for 30 min. exactly at 37°C, then add:				
Reagent 5	0.5	0.5	0.5	0.5
Mix well, then add:				
Reagent 6	0.5	0.5	0.5	0.5

Mix , let stand for 10 min. at room temp. in the dark. Read the absorbances of sample (A_{Sample}) and standard (A_{standard}) against reagent blank at 510 nm. The color is stable for one hour . The reaction is linear up to 50 U / L.

CALCULATION :

$$\text{Total activity (U/L)} = \frac{A_{\text{Total}}}{A_{\text{Standard}}} \times 10$$

$$\text{Non-Prostatic Activity (U/L)} = \frac{A_{\text{Non-Prostatic}}}{A_{\text{standard}}} \times 10$$

$$\text{Prostatic Activity} = \text{Total} - \text{Non prostatic}$$

QUALITY CONTROL :

For accuracy and reproducibility control:-
Assayed Multi – Sera, Normal and Elevated.

REFERENCE :

Kind, P.R.N. and King, E. J. (1954) J. Clin. Path. 7, 322

BIO DIAGNOSTIC

DIAGNOSTIC AND RESEARCH REAGENTS

ACID PHOSPHATASE

Colorimetric Method	
+2 to +8°C	50 Tests
In vitro diagnostic use	
CAT. NO.	AC 10 10

REAGENTS

R1 Standard	5 ml
R2 Substrate	15 ml
R3 Buffer	15 ml
R4 Inhibitor	5 ml
R5 4-Aminophenazone	25 ml
R6 Color Reagent	25 ml

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