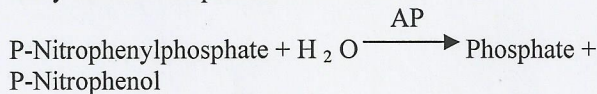




ALKALINE PHOSPHATASE KIT

PRINCIPLE:

The enzymatic reaction sequence employed in the assay of Alk-Phosphatase is as follows:



REAGENT PREPARATION & STABILITY:

1. Reagent R1 : Ready - To - Use
2. Reagent R2 : Ready - To - Use

Avoid Contamination of Ready - To - Use Reagents. Always use fresh pipette tips. Keep always the cap tightly closed. The above reagents R1 & R2 are Ready - To - Use and are stable until expiry dates mentioned on the label. Mix four parts of R1 with one part of R2. The combined reagent is stable for 5 days at 2 - 8° C.

COLLECTION AND HANDLING OF SPECIMEN:

1. Serum is the sample of choice. Avoid hemolysis.
2. Heparinized plasma may also be used. Oxalate, Fluoride and EDTA inhibit Alk-Phosphatase, hence unsuitable as Anticoagulants.
3. Perform the assay as soon as possible. Alk-Phosphatase in serum or plasma or in reconstituted control serum, rise significantly when stored.

ASSAY PARAMETERS:

METHOD	: Kinetics
REACTION SLOPE	: Increasing
WAVE LENGTH	: 405 nm
TEMPERATURE	: 37°C
BLANK	: Distilled water
REAGENT VOLUME	: 1000 ul
SAMPLE VOLUME	: 20 ul
READ TIME	: 180 sec
DELAY	: 60 sec
DELTA	: 60sec
NUMBER OF READING	: 3
FACTOR	: 2757
LINEARITY	: 700 IU\ L
UNITS	: IU\ L

Manual Assay

Pipette into cuvettes	Macro (ul)	Semi-Micro (ul)
Reagent	1000	500
Sample	20	10

Mix well & take the first reading after 60 Sec. and take three additional readings at 60 Sec. intervals. Calculate mean absorbance change per minute (A/min)

NOTE: If A/min exceeds 0.250, dilute 1 part of the sample with 9 parts of 0.9% of NaCl solution and re assay.

Multiply the result by 10.

CALCULATIONS:

$$\text{IU /L} = \text{Abs./min} \times 2757$$

EXPECTED VALUES:

Women - 60-300 IU/L

Men - 80-300 IU/L

Children - Upto 1000 IU/L

LINEARITY : 700 IU/L

NOTE: The expected values are not to be confused with those indicated for DGKC (DEA Buffer) Method.

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