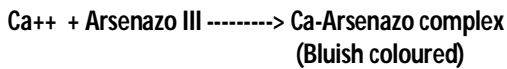


PRINCIPLE:

CALCIUM reacts with a dye Arsenazo at specific pH to form bluish purple coloured complex. The intensity of the colour formed is directly proportional to the amount of CALCIUM present in the sample.


KIT CONTENTS

R1-Dye Reagent
S1-Calcium Standard (10mg/dl)

STORAGE & STABILITY:

All the reagents are stable at R.T. upto the expiry date mentioned on the label.

SAMPLES:

Serum (Free From Haemolysis)

REFERENCE VALUES:

Serum ---- 8.8 - 10.5 mg / dl.
 [It is recommended that each laboratory should establish its own normal range]

REAGENT PREPARATION:

All reagents are ready to use.

ASSAY PROCEDURE:

Wavelength / Filter : 620 nm (600 - 650 nm)
 Temperature : R.T.
 Cuvette : 1 cm light path.

PROCEDURE:

	B	S	T
R ₁ -Dye reagent	1000ul	1000ul	1000ul
S ₁ -Calcium standard (10mg/dl)	-----	10ul	-----
Serum	-----	-----	10ul

Mix well and incubate at **R.T.** for **exactly 05 min.** and measure the absorbance of the Standard (**Abs.S**) and Test Sample (**Abs.T**) against the reagent blank (Abs.B).

CALCULATION:

$$\text{Calcium in mg/dl} = \frac{(\text{Abs.T}) - (\text{Abs.B})}{(\text{Abs.S}) - (\text{Abs.B})} \times 10$$

LINEARITY:

The reagent is linear upto **18 mg / dl**.
 If a value exceeds this limit, dilute the sample with DI water & repeat the assay. Multiply the result with proper dilution factor.

ASSAY PARAMETERS:

- Mode of reaction : End point
- Slope of reaction : Increasing
- Wavelength : 620 nm
- Temperature : R.T.
- Blanking : Reagent blank
- Reagent blank abs. : <0.6
- Standard Conc. : 10 mg/dl
- Unit : mg/dl
- Reading delay time : 05 seconds
- Reaction time : 05 min
- Working Regt. Vol. : 1000 ul
- Sample Volume : 10 ul
- High Linearity : 18 mg / dl

REFERENCES:

Biggs H.G., Moorehead, W.R., (1974), Clin.Chem.20, 1458 - 1460.

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