ESTROM Sodium-SLR
(Trinders Method)

ANGSTROM BIOTECH PVT. LTD

PRINCIPLE
Sodium is estimated by colorimetric Trinders method. Sodium reacts with selective Chromogen producing chromophore. The intensity of the colour is directly proportional to the sodium concentration in the specimen and is measured photometrically at **(600-650nm).**

CLINICAL SIGNIFICANCE
Sodium is the major extracellular cation. Sodium with its associated cations provides the bulk of osmatically active solute in the plasma thus affecting the distribution of body water significantly. A shift of the Sodium into the cells or a decrease of the extracellular fluid volume, affects circulation, renal function and nervous system function. Elevated sodium levels are associated with dehydration, central nervous systems trauma and hyperadrenocorticisim or dehydration. While low sodium levels are found during hypoadrenalism, severe pylori, metabolic acidosis, diarrhoea and renal disease.

SAMPLE COLLECTION & STORAGE
Serum is preferred
Lipemic/Icteric sample should be avoided.

PREACAUTIONS
Sodium kit is for invitro diagnostic use only.
Bring reagents to room temperature before use.

Glassware should be washed with Nitric acid and rinsed with high purity dist. water to avoid contamination due to detergents etc.

KIT CONTENTS & STORAGE	2x25ml	15 Tests
Reagent	2	1
Standard (140 mmol/L)	1	1

All reagents are to be stored at 2-8^{0}C and stable still expiry date mentioned.

REAGENT PREPARATION
All reagents are ready to use.

GENERAL INSTRUMENT PARAMETERS

Reaction type	End point
Wave length	**(600-650nm)**
Flow cell temp.	30^{0}C
Reagent volume	1.0 ml
Sample volume	10 µl
Standard concentration	140 mmol/L
Units	mmol/L
Incubation	5 minutes
Zero setting	Reagent blank
Path length	1.0 cm

Pipette in a clean dry test tubes labeled as Blank (B) Standard (S) and Test (T)

	Blank	Standard	Test
Reagent	1.0 ml	1.0 ml	1.0 ml
Standard		10 µl	
Sample			10 µl

Mix well and incubate at RT for 5 minutes and record the absorbance of Blank, Standard, Test with at 620 nm (600-650) at 5 mins.

CALCULATIONS
Conc. of sodium in serum (mmol/L)

$$= \frac{\text{Abs. of test - Abs. of blank}}{\text{Abs. of std - Abs. of blank}} \times 140 \text{ mmol/L}$$

LINEARITY
This method is linear up to 200 mmol/L. Samples exceeding linearity should be diluted and re-assayed. The result has to be multiplied by the dilution factor.

NORMAL RANGE
135 -155 mmol/L

Due to variation in inter-laboratory assay conditions, instruments and demography. It is recommended that each laboratory should establish its own normal range.

Indications of Reagent Deterioration.

Blank absorbance limit ≤ 1.500
Failure to recover control values within the acceptable range.

Angstrom Biotech Pvt.Ltd.
G1 - 1035, RIICO Industrial Area
Phase - III, Bhiwadi,
Alwar, Rajasthan.
Pin Code - 301019
Email: info@angstrombiotech.in
Website: www.angstrombiotech.in.
Customer Care Number - 9599194831

⚠	Attention,see instructions for use		Consult Instructions For Use
IVD	For in vitro diagnostic use only	REF	Catalog #
2°C 8°C	Store between 2-8°C	LOT	Lot Number
	Do not use if package is damaged		Date of Manufacturing
	Manufacturer		Use by