

PRODUCT CODE
CE006

INTENDED USE

This reagent kit is intended for the “In Vitro “quantitative determination of Sodium in Serum

CLINICAL SIGNIFICANCE

Sodium is the major cation of extracellular fluid. It plays a central role in the maintenance of the normal distribution of water and the osmotic pressure in the various fluid compartments. The main source of body sodium is the sodium chloride contained in ingested foods. Only about one-third of the total body sodium is contained in the skeleton since most of it is contained in the extracellular body fluids. Hyponatremia (low serum sodium level) is found in a variety of conditions including the following: severe polyuria, metabolic acidosis, Addison's disease, diarrhea, and renal tubular disease. Hypernatremia (increased serum sodium level) is found in the following conditions: hyperadrenalism, severe dehydration, and diabetic coma after therapy with insulin, excess treatment with sodium salts.

PRINCIPLE

The method is based on reaction of sodium with a selective Chromogen producing a chromophore whose absorbance is directly proportional to sodium concentration in the sample

REAGENT COMPOSITION

Sodium Reagent

REAGENT PREPARATION

The reagent is ready to use.

STORAGE AND STABILITY

The reagent, stable up to the stated expiry date when stored at 15-30 ° C.

SPECIMEN

Serum or heparinized plasma.

Sodium is stable for 2 weeks at 2 - 8°C.

PROCEDURE

APPLICATION ON AUTO BIOCHEMISTRY

ANALYSERS

BR-160 AUTO BIO CHEMISTRY ANALYSER					
TEST NAME	NA		SAMPLE VOLUME	2	
FULL NAME	SODIUM				
WAVE LENGTH	PRI 630	SEC. 700	REAGENT VOLUME	R1 200	R2 0
ASSAY /POINT	1 POINT END	START 1	END 15		
DECIMAL PLACE	2				
UNIT	mEq/L				
LINEARITY RANGE	LOW 1	HIGH 180			

BR-120 AUTO BIO CHEMISTRY ANALYSER					
TEST NAME	NA		SAMPLE VOLUME	2	
FULL NAME	SODIUM				
WAVE LENGTH	PRI 630	SEC. 700	REAGENT VOLUME	R1 200	R2 0
ASSAY /POINT	1 POINT END	START 1	END 34		
DECIMAL PLACE	2				
UNIT	mEq/L				
LINEARITY RANGE	LOW 1	HIGH 180			



NORMAL RANGE

Serum/Plasma: 135 - 155 mEq/L.

It is recommended that each laboratory establish its own normal range representing its patient population.

LINEARITY

This procedure is linear up to 180 mEq/L. If values exceed this limit dilute the sample with distilled water and multiply results with proper dilution

NOTE

As Sodium is a very widely distributed ion, care should be taken to avoid any contamination. All glass wares being used for the test should first be rinsed with 1% or 0.1 N HNO₃ and then with good quality deionized water before use.

QUALITY CONTROL

Control serum of known concentrations should be analyzed with each run.

SYMBOL ON LABELS

 in vitro diagnostics	 manufacturing date
 lot number	 expiry date
 catalogue number	 manufacturer
 temperature limit	 instruction for use

BIBLIOGRAPHY

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- 3.Maruna RFL., Clin Chem. Acta. 2:581, (1958)
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