Chloride

Liquid Stable Reagent
Colorimetric method by using thiocyanate
Store at Room temperature

PRINCIPLE

Chloride ions forms a colored complex when it reacts with mercury (II) thiocyanate solution. The intensity of the color is proportional to the chloride concentration .

REFERENCE VALUES

Serum , plasma	95 -105	mmol/l
Urine	170 -250	mmol/l
CFS	123 -128	mmol/l

It is recommended that each laboratory should assign its own normal rang.

SAMPLES

Serum, heparin plasma, urine, cerebrospinal fluid (CFS).

REAGENTS

R1:

Mercury II thiocyanat	2.0 mmol/L
Iron nitrate	20 mmol/L
Mercury nitrate	0.15 mmol/L
Nitric acid	45 mmol/L

R2:

Standard chloride	100 mmol/L

Reagents are stable at room temperature until the expiry date stated on the label. Avoid direct sunlight.

PROCEDURE

Wavelength	480 nm
Temperature	Room temperature
Cuvette	1 cm light path
Method	Endpoint (increasing)

If the absorbance of working reagent is higher than 0.1 at 492nm the reagent can not be used.

	Blank	Standard	Sample
Sample	-	-	10µl
Standard	-	10µl	
Reagent	1ml	1ml	1ml

Mix and read the optical density (O.D) after 1 minute incubation . The final color is stable for at least 1 hour.

CALCULATION

$$\frac{\text{O.D sample}}{\text{O.D standard}} \times \text{standard concentration}$$

mmol/l Chloride = mEq/l Chloride

LINEARITY

Up to 130 mmol/l

NOTE

-The reagent contains mercuric nitrate which is toxic.
- Anticoagulants other than heparin as EDTA must be avoided.
- Use acid washed glassware or plastic tubes.

SPECIFICATION

Bilirubin 0.5g/l, lipid 7g/l, glucose 10g/l and ascorbic acid 0.35g/l do not interfere with the assay up to the given levels.

PRESENTATION

4 X 60 ml Cat No 1201 240 Tests

BIBLIOGRAPHY

Schoenfeld. R. g., et al Clin. Chem .10, 533,(1964).

The following symbols are used on labels

IVD — **For in vitro diagnostic use**

Use day (last day of the month)

Temperature limitation

LOT — **Batch code**

REF — **Code**