

Chloride Test Kit

REF	Pack Size	Reagent 1	Reagent 2 (Std)
CLOLMS01	25x1 ml	25x1 ml	1x2 ml
CLOLMS02	2x25 ml	2x25 ml	1x2 ml
CLOLMS03	4x25 ml	4x25 ml	1x2 ml

INTENDED USE

Chloride reagent is used for quantitative estimation of Chloride concentration in human serum or plasma.

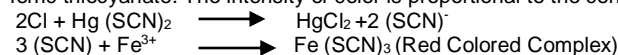
CLINICAL SIGNIFICANCE

Chloride, a major anion, is important in the maintenance of cation/anion balance between inter and intra-cellular fluids. This electrolyte is therefore essential to the control proper hydration, osmotic pressure, and acid/base equilibrium. Elevated serum chloride values may be seen in dehydration, hyperventilation, congestive heart failure and prostatic or other types of urinary obstruction. Low serum chloride values are found with extensive burns, excessive vomiting, intestinal obstruction, nephritis, metabolic acidosis, and in Addisonian crisis.

METHOD: thiocyanate ions

TEST PRINCIPLE

The chloride ions react with mercuric thiocyanate to release thiocyanate ions, which then react with ferric ions to form a red colored complex of ferric thiocyanate. The intensity of color is proportional to the concentration.



KIT CONTENTS/COMPONENTS

Reagent 1: Thiocyanate

Reagent 2: Standard 100mmol/l

MATERIAL REQUIRED BUT NOT PROVIDED

Laboratory instrumentation, spectrophotometer UV/VIS with thermostatic cuvette holder or clinical chemistry analyzer: semi-automated, calibrated micropipettes, glass or high-quality polystyrene cuvettes, test tubes/rack, heating bath, controls, saline.

SAFETY PRECAUTIONS AND WARNINGS

- For in-vitro diagnostics use only.
- Do not pipette by mouth. Avoid contact with skin and eyes. If spilled thoroughly wash affected area with water.
- Do not use the reagent after the expiration date printed on the kit.

REAGENT PREPARATION, STORAGE AND STABILITY

Reagent is ready to use. Keep away from direct light sources. Stability: up to expiration date on labels at 15-30°C. Stability since first opening of vials: preferable within 60 days at 15-30°C.

REAGENT DETERIORATION

Keep the Standard vial plugged after use, in order to avoid deterioration.

SPECIMEN

Serum or plasma heparinate should be separated from the cells promptly. Serum/plasma are stable for 7 days at 2-8°C and 30 days at -20 °C.

PROGRAM

Reaction Mode	End Point
Wavelength	505 nm
Light Path	10 mm
Blanking	Reagent Blank
Reagent Volume	1000 µl
Standard Volume	10 µl
Sample Volume	10 µl
Incubation	3 mins at 37°C
Standard Concentration	100 mmol/l
Linearity	150 mmol/l

PROCEDURE

	Blank	Standard	Test
Reagent	1000 µl	1000 µl	1000 µl
Distilled water	10 µl	-	-
Chloride Standard	-	10 µl	-
Sample	-	-	10 µl

Mix well, incubate for 3 min at R.T read the absorbance against reagent blank.

CALCULATION

$$\text{Conc. of Chloride} = \frac{\text{Abs sample}}{\text{Abs standard}} \times 100 (\text{mmol/l}) (\text{Conc. of Std.})$$

NORMAL VALUES

98 to 107 mmol/l

LIMITATIONS

If the value exceeds 150mmol/l dilute the sample with 0.9% saline solution rerun and result multiplied by dilution factor.

QUALITY CONTROL AND CALIBRATION

It is recommended to perform internal quality control with assayed normal and assayed abnormal, to confirm the validity of the test and assure the accuracy of patient result. Using the recommended calibrator or the Standard included, calibrate the assay.

- When using a new reagent or lot
- When QC values are out of range

WASTE DISPOSAL










This Product is made to be used in professional laboratories.

HIGHLIGHTS

- The Reagents are sensitive to light & higher temperature. Reagents may develop a slight pink coloration on ageing which does not interfere with the functionality of reagent.
- If the volume of the reagent is not sufficient to fill the cuvette, double all the specified volumes.
- Storage condition mentioned on the kit is to be used.
- Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
- Before testing bring the reagents to the RT.
- Avoid reagents contamination.
- Every time use new pipette-tips for pipetting out the reagents.
- These Reagent kits meant for laboratory/professional use only, not for Drug use.

REFERENCE

Burtis C.A. Ashwood E. R.eds. Tietz text book of Clinical chemistry, 3rd ed. Philadelphia, Pa: W.B. Saunders 1994
Lords Data File.

	Catalog No.		Contain Sufficient for test
	Batch No.		Instruction for use
	Manufacturing Date		In-vitro Diagnostics
	Expiry Date		Storage temperature
	Manufacturer		

IFU/CLO/01 Rev.: 02; Rev Dated.: 22/07/2024

