

Chloride (Cl⁻) Test Kit (Colorimetric)

【NAME】

Chloride (Cl⁻) Test Kit (Colorimetric)

【INTEND USE】

This reagent is intended for the in vitro quantitative determination of Chloride (Cl⁻) in human serum or plasma. Decrease of chloride ion is more common in clinic, such as salt-losing nephritis, metabolic acidosis, etc. Increase of chloride ion is more common in cystic fibrosis (also known as congenital mucus thick disease), dehydration, continued diarrhea and bicarbonate loss caused by metabolic acidosis and renal insufficiency, endocrine disorder caused by adrenal function decline or rise.

【METHODOLOGY】

Chlorine ion and mercuric thiocyanate, generated difficult to dissociation of mercuric chloride, and release the same amount of thiocyanate ions. Then combined with iron ions generated orange red iron thiocyanate, Color intensity is proportional to the concentration of Chloride (Cl⁻).

【STABILITY AND STORAGE】

Unopened, avoid light preservation in 2~8 °C, valid for 12 months;
Opened, avoid contamination preservation in 2~8 °C, valid for 1 month.
Reagent is not allowed frozen.

【SPECIMEN COLLECTION AND HANDLING】

It is best to fresh Serum, heparin or EDTA anticoagulant blood plasma.
Don't use the blood sample collection bottle containing sodium fluoride.
Serum stability: 4~8°C preservation stability in 2days;

【APPLICABLE INSTRUMENT】

Fully automatic biochemistry analyzer.

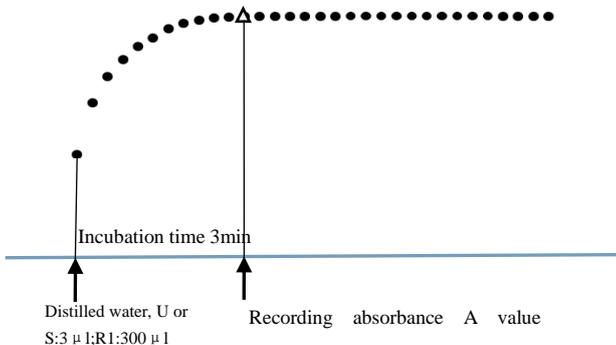
【SYSTEM PARAMETERS】

The following system parameters are recommended. Individual instrument applications are available upon request from the Technical Support Group

Temperature	37° C
Cuvette light path	1.0cm
Primary Wavelength	450 nm
Secondary Wavelength	700nm
Assay Type	One Point End
Direction	Increase
Sample : Reagent Ratio	1:100
eg : Sample Vol.	3 μL
Reagent Vol.	300 μL
Linearity	0~130mmol/L

【OPERATION STEPS】

R:Reagent S:Calibrator U:Sample



【CALCULATION】

Use The Calibrator

$$\text{Sample Cl}^- \text{ concentration} = \frac{\text{Sample } \Delta A}{\text{Calibrator } \Delta A} \times \text{Calibrator concentration}$$

【REFERENCE RANGE】

95~105mmol/L

By clinical trials, choose no less than 100 newborn or adults blood specimens, tested by automatic biochemical analyzer, and then processing the testing value with statistical method, calculating out the reference range.

Recommendation: The laboratory set up its own reference range!

【THE LIMITATION OF TEST RESULTS】

Cl testing is just one of the standard that clinician diagnose the patient. Clinical physicians should according to patients' bodies, history and other diagnostic program, to get comprehensive judgment.

【THE INTERPRETATION OF TEST RESULTS】

Human error, the processing of specimen, analysis instrument deviation, etc. all can affect the measurement result; When one sample deviates from the expected value too far, need to be tested again.

【PERFORMANCE INDEX】

- 1.Reagent blank absorbance ≤ 0.3 , (436nm, 1cm optical path).
- 2.Precision: repeatability $CV \leq 5\%$; batch variations $R \leq 5\%$.
- 3.Accuracy: relative deviation $\leq 10\%$.
- 4.Linearity range: 0~130mmol/L, $r \geq 0.990$.
5. Stability: All package reagent, non corrosive gas and avoid light, preservation in 2~8 °C, stable 12 months.
once opened, avoid light, preservation in 2~8 °C, stable 30 days.

【ATTENTION】

1. Reagent contains sodium azide (toxic) preservatives, avoid contact with skin and mucous membrane. If necessary preventive measures should be taken use of reagents, reagent contact with skin and mucous membrane, please rinse with water, please go to a doctor if necessary.
2. The maximum linearity is 130mmol/L. If testing results is upper limit, dilute with 0.9% sodium chloride solution before test, results multiplied by the dilution ratio.