CORALYZER
System Pack

Chloride Kit

(Thiocyanate Method)

For the determination of Cl^- in serum.
(For Invitro Diagnostic Use Only)

Summary

Chloride is a major extracellular anion and maintains the cation/ anion balance between intra and extra cellular fluids, mostly as a salt with sodium. Increased levels are usually found in dehydration, kidney dysfunction, and anaemia. Decreased levels are found in extensive burns, vomiting, diarrhoea, intestinal obstructions, & salt losing nephritis.

Principle

Chloride ions combine with free mercuric ions and release thiocyanate from mercuric thiocyanate. The thiocyanate released combines with the ferric ions to form a red brown ferric thiocyanate complex. Intensity of the colour formed is directly proportional to the amount of chloride present in the sample.

$$2\,Cl^- + Hg(SCN)_2 \longrightarrow HgCl_2 + 2\,(SCN)^-$$
$$3\,(SCN) + Fe^{3+} \longrightarrow Fe(SCN)_3$$

Normal reference values

Serum / Plasma Chloride	:	98 - 106 mmol/l
Urine Chloride	:	170 - 250 mmol/24 hours
CSF Chloride	:	120 - 135 mmol/l

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

Contents

Coralyzer 200 System Packs	**90 ml**
L1 : Chloride Reagent	6 x 15 ml

Storage / stability

Contents are stable at R. T. till the expiry mentioned on the labels.

Reagent Preparation

Reagent is ready to use

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Sample material

Serum or plasma. Chloride is reported to be stable in serum for 7 days at 2-8^{0}C.

Calibration

Calibrator is recommended for calibration of this assay.

Linearity

This procedure is linear between 70 - 140 mmol/l.

Note

Turbid or icteric samples may produce falsely elevated results. The procedure for chloride measures total halides such as bromides, iodides, & fluorides in addition to chlorides hence their contamination should be avoided.

References

Schales, O., Schales, S.S., (1941) J. Biol. Chem. 140 : 879
Schoenfeld, R.G., Lewellen, C.J., (1964) Clin. Chem. 10 : 553

Programming on	CORALYZER 100/200
Item	CHLORIDE
Full Name	CHLORIDE
Test Method	End Point
Base Information	
Unit	mmol/l
Filter	510 nm
Sub. Filter	670 nm
Decimal	xx.xx
High pollute	No
Reagent Blank	
Blank Medium	Reagent
Blank Value	0
Blank Low	0
Blank High	1
Sample	
Sample Volume	3
Dilution Times	1
Range Setup	
Reagent	
Rgt. 1 Volume	300
Rgt. 2 Volume	0
Linearity	140
Read data for check	
Assistant Start	NONE
Assistant End	NONE
Range Low	0
Range High	2
Test Point Start	10
Test Point End	11
Standard	
Number of	1
Factor	1
Correct Factor	1
Standard Cup	User Defined
Conc.	See Calibrator

Manufactured by:
Coral Clinical Systems
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