



Chloride 21 FS*

In-vitro-Diagnostic for veterinary use only

Diagnostic reagent for quantitative in vitro determination of chloride in serum or plasma on DiaSys respons[®]910 VET

Order Information

Cat. No. 1 1221 99 11 921

4 twin containers for 50 tests each

Method

Photometric test using Ferric (III) perchlorate

Principle

Chloride forms with ferric ions a yellow colored complex whose absorption is measured at 340 nm. A decoloring agent in reagent 2 displaces chloride out of the complex, thereby discoloring the solution. The difference in absorbance between the colored and discolored state of the solution is proportional to the concentration of chloride in the sample.

Reagents

Components and Concentrations

R1:	Methanesulfonic acid	pH < 1,0	1 – 5%
	Ferric (III) perchlorate		< 1%
R2:	Inorganic salt		< 3%

Storage Instructions and Reagent Stability

The reagents are stable up to the end of the indicated month of expiry, if stored at 35.6 – 46.4°F and contamination is avoided. Do not freeze the reagents.

Warnings and Precautions

1. Reagent 1: Danger. H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H411 Toxic to aquatic life with long lasting effects. P234 Keep only in original container. P260 Do not breathe vapors. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a poison center or doctor/physician. P390 Absorb spillage to prevent material damage.
2. The chloride test is very susceptible to chloride contamination. The sole use of ultrapure glass ware and disposable materials is strongly recommended.
3. In very rare cases, samples of animals with gammopathy might give falsified results.
4. Please refer to the safety data sheets and take the necessary precautions for the use of laboratory reagents. For diagnostic purposes, the results should always be assessed with the animal's medical history, clinical examinations and other findings.
5. For professional use only!

Waste Management

Please refer to local legal requirements.

Reagent Preparation

The reagents are ready to use. The bottles are placed directly onto the reagent rotor.

Specimen

Serum or plasma (lithium heparin)
Separate from cellular contents immediately after blood collection.
Stability:
2 days at 39.2°F to 46.4°F
Discard contaminated specimens.

Calibrators and Controls

For calibration, DiaSys TruCal E calibrator is recommended. The assigned values of TruCal E have been made traceable to the NIST Standard Reference Material[®] SRM 956. For internal quality control DiaSys TruLab N and P controls should be assayed. Each laboratory should establish corrective action in case of deviations in control recovery.

	Cat. No.	Kit size
TruCal E	1 9310 99 11 079	4 x 3 mL
TruLab N	5 9000 99 11 062	20 x 5 mL
TruLab P	5 9050 99 11 062	20 x 5 mL

Performance Characteristics

The performance characteristics were evaluated with human samples and might differ from results obtained with various animal specimen.

Measuring range 40 – 170 mmol/L chloride	
Limit of detection**	8 mmol/L chloride
On-board stability	6 weeks
Calibration stability	7 days

Interfering substance	Interferences < 4.5%	Chloride [mmol/L]
Ascorbate	up to 30 mg/dL	91.6
	up to 30 mg/dL	113
Bilirubin, conjugated	up to 30 mg/dL	89.2
	up to 42 mg/dL	111
Bilirubin, unconjugated	up to 60 mg/dL	90.1
	up to 42 mg/dL	113
Lipemia (triglycerides)	up to 500 mg/dL	96.1
	up to 1000 mg/dL	110
Hemoglobin	up to 500 mg/dL	103
	up to 700 mg/dL	120
Albumin	up to 76 g/L	94.3
	up to 68 g/L	122
Bromide	up to 40 mmol/L	92.2
	up to 40 mmol/L	111
Iodide	up to 0.9 mmol/L	90.1
	up to 3 mmol/L	112
Fluoride	up to 105 µmol/L	87.5
	up to 105 µmol/L	107

For further information on interfering substances refer to Young DS. Effects of Drugs on Clinical Laboratory Tests. 5th. ed. Volume 1 and 2. Washington, DC: The American Association for Clinical Chemistry Press, 2000.





** according to NCLS document EP17-A, vol. 24, no. 34

Conversion Factor

Chloride [mmol/L] = Chloride [mEq/L]

Chloride [mmol/L] x 3.545 = Chloride [mg/dL]

Reference Range

				
DOG	CAT	HORSE	CATTLE	Unit
108 – 126	112 – 131	94 – 108	95 – 110	mmol/L

Source:

Reference ranges have been validated by DiaSys USA according to National Reference Laboratory standards.

Each laboratory should check if the reference ranges are transferable to its own animal population and determine own reference ranges if necessary.

Manufacturer

DiaSys Diagnostic Systems GmbH
Alte Strasse 9 65558 Holzheim German