



# Sodium FS\*

In-vitro-Diagnostic for veterinary use only

Diagnostic reagent for quantitative in vitro determination of sodium in serum or plasma on DiaSys respons<sup>®</sup>910 VET

## Order Information

Cat. No. 1 4808 99 11 921

4 twin containers for 100 tests each

## Method

Enzymatic photometric test

## Principle

β-galactosidase catalyzes the conversion of o-nitrophenyl-β-D-galactopyranoside (ONPG) to o-nitrophenol and galactose. The activity of β-galactosidase depends on the sodium concentration in the sample. The absorbance increase at 405 nm is proportional to the sodium concentration in the sample.

## Reagents

### Components and Concentrations

<b>R1:</b>	THAM buffer	pH 9.0	5.5%
	Chelator		0.15%
	β-galactosidase		0.01%
<b>R2:</b>	THAM buffer	pH 8.8	0.2%
	o-nitrophenyl galactosidase		0.4%

### 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, protected from light and contamination is avoided. DiaSys respons containers provide protection from light. Do not freeze the reagents.

### Warnings and Precautions

- The sodium test is very susceptible to sodium contamination. The sole use of ultrapure glass ware and disposable material is strongly recommended.
- In very rare cases, samples of animals with gammopathy might give falsified results.
- 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.
- 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. Warm up reagents to room temperature before use.

### Specimen

Serum or plasma (lithium heparin)

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<sup>®</sup> 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 100 – 180 mmol/L sodium	
Limit of detection**	42 mmol/L sodium
On-board stability	4 weeks
Calibration stability	1 day

Interfering substance	Interferences < 3.0%	Sodium [mmol/L]
<b>Ascorbate</b>	up to 50 mg/dL	133
	up to 50 mg/dL	148
<b>Conjugated bilirubin</b>	up to 30 mg/dL	134
	up to 20 mg/dL	149
<b>Unconjugated bilirubin</b>	up to 60 mg/dL	135
	up to 60 mg/dL	148
<b>Lipemia (triglycerides)</b>	up to 1000 mg/dL	132
	up to 1000 mg/dL	153
<b>Hemoglobin</b>	up to 500 mg/dL	127
	up to 250 mg/dL	148
<b>Calcium</b>	from 2 to 10 mmol/L	132
	from 2 to 10 mmol/L	149
<b>Copper</b>	up to 60 μmol/L	121
	up to 60 μmol/L	143
<b>Iron</b>	up to 200 μmol/L	134
	up to 270 μmol/L	157
<b>Lithium</b>	up to 3.7 mmol/L	136
	up to 3.3 mmol/L	150
<b>Magnesium</b>	up to 15 mmol/L	135
	up to 15 mmol/L	153
<b>Potassium</b>	from 3 to 12 mmol/L	126
	from 3 to 13 mmol/L	154
<b>Zinc</b>	up to 80 μmol/L	131
	up to 80 μmol/L	150

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 NCCLS document EP17-A, vol. 24, no. 34

## Conversion Factor

Sodium [mmol/L] = Sodium [mEq/L]

Sodium [mmol/L] x 2.30 = Sodium [mg/dL]

## Reference Range

				Unit
DOG	CAT	HORSE	CATTLE	
137 – 158	143 – 163	130 – 145	134 – 150	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

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