



# Total protein FS\*

In-vitro-Diagnostic for veterinary use only

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

## Order Information

Cat. No. 1 2311 99 11 920  
4 twin containers for 200 tests each

## Method

Photometric test according to biuret method

## Principle

Together with copper ions, proteins form a violet blue color complex in alkaline solution. The absorbance of the color is directly proportional to the protein concentration.

## Reagents

### Components and Concentrations

<b>R1:</b>	Sodium hydroxide	100 mmol/L
	Potassium sodium tartrate	17 mmol/L
<b>R2:</b>	Sodium hydroxide	500 mmol/L
	Potassium sodium tartrate	80 mmol/L
	Potassium iodide	75 mmol/L
	Copper sulphate	30 mmol/L

### Storage Instructions and Reagent Stability

The reagents are stable up to the end of the indicated month of expiry, if stored at 35.6 – 77°F, protected from light and contamination is avoided. DiaSys respons containers provide protection from light. Do not freeze the reagents!

### Warnings and Precautions

1. Reagent 1: Warning. H290 May be corrosive to metals. P234 Keep only in original container. P390 Absorb spillage to prevent material damage.
2. Reagent 2: Warning. H290 May be corrosive to metals. H315 Causes skin irritation. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects. P234 Keep only in original container. P264 Wash hands and face thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P332+P313 If skin irritation occurs: Get medical advice/attention. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention.
3. In serum or plasma from animals who received large intravenous amounts of polydextran, too high values can be measured with the biuret method. In such cases an alternative method (e.g. Kjeldahl) has to be used.
4. In very rare cases, samples of animals with gammopathy might give falsified results.
5. 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.
6. 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 into the reagent rotor.

## Specimen

Serum or plasma

Stability :

2 days at 39.2°F to 46.4°F

Discard contaminated specimens.

## Calibrators and Controls

For calibration, DiaSys TruCal U calibrator is recommended. The assigned values of the calibrator are traceable to the biuret method. For internal quality control DiaSys TruLab N and P controls should be assayed. Each laboratory should establish corrective actions in case of deviations in control recovery.

	Cat. No.	Kit size
TruCal U	5 9100 99 11 063	20 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 up to 14.0 g/dL protein (in case of higher concentrations re-measure samples after manual dilution with NaCl solution (9 g/L) or use rerun function).	
Limit of detection**	0.06 g/dL protein
On-board stability	10 days
Calibration stability	7 days

Interfering substance	Interferences < 10%	Protein [g/dL]
<b>Ascorbate</b>	up to 30 mg/dL	4.84
	up to 2000 mg/dL	5.05
<b>Dextran</b>	up to 2000 mg/dL	6.10
	up to 550 mg/dL	6.43
<b>Hemoglobin</b>	up to 550 mg/dL	7.94
	up to 60 mg/dL	6.28
<b>Bilirubin, conjugated</b>	up to 60 mg/dL	7.85
	up to 70 mg/dL	6.33
<b>Bilirubin, unconjugated</b>	up to 70 mg/dL	7.80
	up to 1000 mg/dL	6.03
<b>Lipemia (triglycerides)</b>	up to 2000 mg/dL	8.18

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

## Reference Range

				Unit
DOG	CAT	HORSE	CATTLE	g/dL
5.4 – 7.2	6.4 – 8.5	5.7 – 7.8	6.5 – 8.4	

### 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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