



Lactate FS*

In-vitro-Diagnostic for veterinary use only

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

Order Information

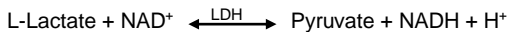
Cat. No. 1 4001 99 11 921

4 twin containers for 120 tests each

Method

Enzymatic UV test with lactate dehydrogenase (LDH)

Principle



In the presence of NAD lactate is converted by the lactate dehydrogenase. This procedure releases NADH which is measured at 340 nm. The absorbance of the produced NADH is proportional to the lactate concentration in the sample.

Reagents

Components and Concentrations

R1: Buffer	pH 9.0	500 mmol/L
LDH		≥ 25 kU/L
R2: NAD		20 mmol/L

Storage Instructions and Reagent Stability

The reagents are stable up to the end of the indicated month of expiry, if stored at 35.6–46.4°F, protected from light and contamination is avoided. DiaSys respons containers provide protection from light. Do not freeze the reagents!

Warnings and Precautions

1. Reagent 1: Danger. H315 Causes skin irritation. H318 Causes serious eye damage. P280 Wear protective gloves/protective clothing/eye protection. P302+352 If on skin: Wash with plenty of water/soap. 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.
2. Reagent 1 contains sodium azide (0.95 g/L) as preservative. Do not swallow! Avoid contact with skin and mucous membranes.
3. Reagent 1 contains biological material. Handle the product as potentially infectious according to universal precautions and good laboratory practice.
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 onto the reagent rotor.

Specimen

Plasma (no serum)

As anticoagulants use glycolytic inhibitors e.g. fluoride/oxalate or fluoride/heparin.

Stability in plasma:

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 a primary standard. 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 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 120 mg/dL lactate (13.3 mmol/L) (in case of higher concentrations re-measure samples after manual dilution with NaCl solution (9 g/L) or use rerun function).	
Limit of detection**	1 mg/dL lactate (0.1 mmol/L)
On-board stability	1 week
Calibration stability	1 week

Interfering substance	Interferences < 10%	Lactate [mg/dL]
Ascorbate	up to 30 mg/dL	21.5
Hemoglobin	up to 1200 mg/dL	6.31
	up to 1200 mg/dL	21.8
Bilirubin, conjugated	up to 65 mg/dL	6.86
	up to 65 mg/dL	21.9
Bilirubin, unconjugated	up to 70 mg/dL	6.03
	up to 70 mg/dL	22.1
Lipemia (triglycerides)	up to 1500 mg/dL	5.85
	up to 1800 mg/dL	20.9
Dopamine	up to 10 mg/L	21.6
L-Dopamine	up to 20 mg/L	21.3
Methyldopamine	up to 10 mg/L	21.6
Glycolic acid	up to 1200 mg/L	21.3



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

Lactate [mg/dL] x 0.1109 = Lactate [mmol/L]

Reference Range

		Unit
DOG	CAT	mmol/L
0 – 2.5	0 – 2.0	

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

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