ß-Hydroxybutyrate FS*

In-vitro-Diagnostic for veterinary use only

Diagnostic reagent for quantitative in vitro determination of β-hydroxybutyrate in serum or plasma on DiaSys respons®910 VET

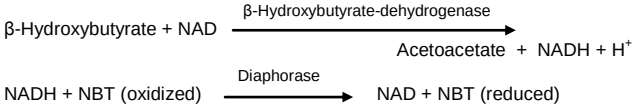
Order Information

Cat. No. 1 3701 99 11 921
4 twin containers for 120 tests each

Method

Enzymatic endpoint determination

Principle



The absorbance of the blue dye at 546 nm is proportional to the β-hydroxybutyrate concentration in the sample.

Reagents

Components and Concentrations

R1:	Buffer	pH 8.4	115 mmol/L
	β-Hydroxybutyrate dehydrogenase		≥ 3 kU/L
	Diaphorase		2.1 kU/L
R2:	NAD		21 mmol/L
	Oxalic acid		66 mmol/L
	Nitroblue tetrazolium (NBT)		1.7 mmol/L
β-Hydroxybutyrate Standard FS:			1 mmol/L

Storage Instructions and Reagent Stability

The reagents and the standard 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. The reagents contain sodium azide (0.95 g/L) as preservative. Do not swallow! Avoid contact with skin and mucous membranes.
2. Reagent 1 contains biological material. Handle the product as potentially infectious according to universal precautions and good laboratory practice.
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 and the standard are ready to use. The reagent bottles are placed directly onto the reagent trays.
Note: After a long cool storage, a slightly violet sediment in reagent R2 can accrue which does not influence the measurement, however, it should be re-dissolved into solution by shaking the bottle gently before further measurement.

Specimen

Serum and plasma

Stability :
2 days at 39.2°F to 46.4°F

Discard contaminated specimens.

Calibrators and Controls

For calibration DiaSys β-Hydroxybutyrate standard FS is recommended. β-Hydroxybutyrate Standard FS values have been made traceable to the weighing of purest β-hydroxybutyrate. 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
β-Hydroxybutyrate Standard FS	1 3700 99 11 030	3 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 6.9 mmol/L β-hydroxybutyrate (in case of higher concentrations re-measure samples after manual dilution with NaCl solution (9 g/L) or use rerun function).	
Limit of detection**	0.04 mmol/L β-hydroxybutyrate
On-board stability	6 weeks
Calibration stability	1 weeks

Interfering substance	**Interferences < 10%**	**HBUT [mmol/L]**
Ascorbate	up to 30 mg/dL	0.66
Hemoglobin	up to 120 mg/dL	0.32
	up to 600 mg/dL	1.26
Bilirubin, conjugated	up to 45 mg/dL	0.31
	up to 65 mg/dL	1.43
Bilirubin, unconjugated	up to 50 mg/dL	0.36
	up to 65 mg/dL	0.91
Lipemia (triglycerides)	up to 2000 mg/dL	0.36
	up to 2000 mg/dL	1.40
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

ß-Hydroxybutyrate [mg/dL] x 0.0962 = ß-Hydroxybutyrate [mmol/L]

Reference Range

Each laboratory should determine own reference ranges for its individual animal population.

Manufacturer

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