



β-Hydroxybutyrate 21 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

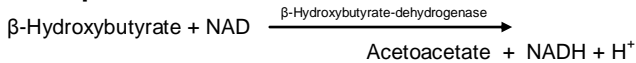
Order Information

Cat. No. 1 3711 99 11 921
4 twin containers for 120 tests each

Method

Enzymatic determination with β-hydroxybutyrate-dehydrogenase

Principle



The absorbance at 340 nm is proportional to the β-hydroxybutyrate concentration in the sample.

Reagents

Components and Concentrations

| | | | |
|------------------|---------------------------------|--------|--------------|
| R1: | Buffer | pH 8.5 | < 150 mmol/L |
| | β-Hydroxybutyrate-dehydrogenase | | ≥ 1 kU/L |
| R2: | Buffer | pH 4.3 | < 70 mmol/L |
| | NAD | | < 25 mmol/L |
| Standard: | | | 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 and contamination is avoided. Do not freeze the reagents and protect from light. DiaSys respons[®] containers provide protection from light.

Warnings and Precautions

1. Reagent 1: Warning. H319 Causes serious eye irritation. P264 Wash hands and face thoroughly after handling. P 280 Wear protective gloves/protective clothing/eye protection/face protection. 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.
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. 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

Refer to local legal requirements.

Reagent Preparation

The reagents and the standard are ready to use. The bottles are placed directly into the reagent rotor.

Specimen

Serum or heparin plasma

Stability :

2 days at 39.2°F to 46.4°F

Discard contaminated specimens.

Calibrators and Controls

DiaSys β-Hydroxybutyrate Standard FS is recommended for calibration. β-Hydroxybutyrate Standard FS values have been made traceable to the weighing of purest β-hydroxybutyrate. Use DiaSys TruLab N and P for internal quality control. 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 |
| | 5 9000 99 11 061 | 6 x 5 mL |
| TruLab P | 5 9050 99 11 062 | 20 x 5 mL |
| | 5 9050 99 11 061 | 6 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 | |
|--|-------------------------------|
| Measuring range from 0.05 – 6.0 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** | 0.05 mmol/L β-Hydroxybutyrate |
| Onboard stability | 6 weeks |
| Calibration stability | 6 weeks |

| Interfering substance | Interferences < 10% up to | HBUT [mmol/L] |
|--------------------------|---------------------------|---------------|
| Acetaminophen | 1.50 mmol/L | 0.226 |
| | 1.50 mmol/L | 2.86 |
| Acetoacetate | 5.00 mmol/L | 0.208 |
| | 5.00 mmol/L | 2.91 |
| Acetylsalicylic acid | 60 mg/dL | 0.200 |
| | 60 mg/dL | 2.88 |
| Ascorbic acid | 50 mg/dL | 0.211 |
| | 50 mg/dL | 2.89 |
| Bilirubin (conjugated) | 50 mg/dL | 0.224 |
| | 50 mg/dL | 2.87 |
| Bilirubin (Unconjugated) | 50 mg/dL | 0.225 |
| | 50 mg/dL | 2.88 |
| Hemoglobin | 500 mg/dL | 0.223 |
| | 1000 mg/dL | 2.87 |
| α-Hydroxybutyrate | 7.0 mmol/L | 0.270 |
| | 7.0 mmol/L | 1.26 |
| Lipemia (triglycerides) | 1000 mg/dL | 0.243 |
| | 1500 mg/dL | 2.21 |
| NAC | 1000 mg/L | 0.204 |
| | 1000 mg/L | 2.86 |

No interference by lactate and lactate dehydrogenase. 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 CLSI document EP17-A2, vol. 32, no.8

Conversion Factor

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

Reference Range

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

Manufacturer

DiaSys Diagnostic Systems GmbH
Alte Strasse 9 65558 Holzheim Germany