

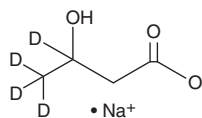
PRODUCT INFORMATION



(±)-β-Hydroxybutyrate-d₄ (sodium salt)

Item No. 14158

CAS Registry No.: 1219804-68-8
Formal Name: 3-hydroxy-butyrac-3,4,4,4-d₄-acid, monosodium salt
Synonym: β-Hydroxybutanoic Acid-d₄
MF: C₄H₃D₄O₃ • Na
FW: 130.1
Chemical Purity: ≥98% ((±)-β-Hydroxybutyrate)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(±)-β-Hydroxybutyrate-d₄ (sodium salt) is intended for use as an internal standard for the quantification of (±)-β-hydroxybutyrate by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

(±)-β-Hydroxybutyrate-d₄ (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-β-hydroxybutyrate-d₄ (sodium salt) in the solvent of choice, which should be purged with an inert gas. (±)-β-Hydroxybutyrate-d₄ (sodium salt) is soluble in the organic solvent ethanol at a concentration of approximately 5 mg/ml.

Description

β-Hydroxybutyrate is a ketone body which is over-produced in ketoacidosis, as can occur with diabetes or alcohol abuse.^{1,2}

References

1. Guerci, B., Tubiana-Rufi, N., Bauduceau, B., *et al.* Advantages to using capillary blood ε-hydroxybutyrate determination for the detection and treatment of diabetic ketosis. *Diabetes Metab.* **31**, 401-406 (2005).
2. Stojanovic, V. and Ihle, S. Role of β-hydroxybutyric acid in diabetic ketoacidosis: A review. *Can. Vet. J.* **52(4)**, 426-430 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM