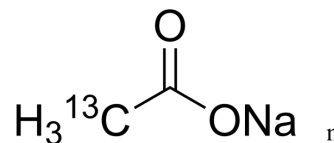


(R)-3-Hydroxybutanoic acid-¹³C sodium

Cat. No.:	HY-W015851S
CAS No.:	13291-89-9
Molecular Formula:	C ¹³ CH ₃ NaO ₂
Molecular Weight:	83.03
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	(R)-3-Hydroxybutanoic acid- ¹³ C (sodium) is the ¹³ C labeled (R)-3-Hydroxybutanoic acid sodium[1]. (R)-3-Hydroxybutanoic acid sodium ((R)-3-Hydroxybutyric acid) is a metabolite converted from acetoacetic acid catalyzed by 3-hydroxybutyrate dehydrogenase. (R)-3-Hydroxybutanoic acid sodium can function as a nutrition source, and as a precursor for vitamins, antibiotics and pheromones[2][3].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Ide T. Enzymatic-HPLC method to analyze D-3-hydroxybutyric acid in rat serum. *Biosci Biotechnol Biochem*. 2010;74(8):1578-82.
- [3]. Mateusz Biernacki, et al. Production of (R)-3-hydroxybutyric acid by *Arxula adenivorans*. *AMB Express*. 2017 Dec7(1):4.

Caution: Product has not been fully validated for medical applications. For research use only.

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