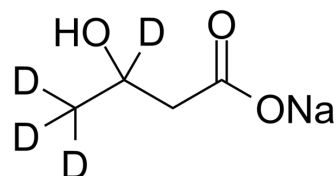


3-Hydroxybutyric acid-d₄ sodium

Cat. No.:	HY-113378S
CAS No.:	1219804-68-8
Molecular Formula:	C ₄ H ₃ D ₄ NaO ₃
Molecular Weight:	130.11
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (768.58 mM)
* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		7.6858 mL	38.4290 mL	76.8580 mL
	5 mM		1.5372 mL	7.6858 mL	15.3716 mL
	10 mM		0.7686 mL	3.8429 mL	7.6858 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

3-Hydroxybutyric acid-d₄ (sodium) is the deuterium labeled 3-Hydroxybutyric acid. 3-Hydroxybutyric acid (β-Hydroxybutyric acid) is a metabolite that is elevated in type I diabetes. 3-Hydroxybutyric acid can modulate the properties of membrane lipids[1].

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;53(2):211-216.
- [2]. Hsu TT, et al. 3-Hydroxybutyric acid interacts with lipid monolayers at concentrations that impair consciousness. Langmuir. 2013 Feb 12;29(6):1948-55.

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

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