DL-β-Hydroxybutyryl coenzyme A lithium

Cat. No.: HY-134426

CAS No.: 103404-51-9

Molecular Formula: $C_{25}H_{42}Li_3N_7O_{18}P_3S$

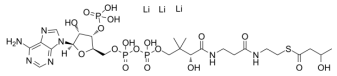
Molecular Weight: 874.45

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 50 mg/mL (57.18 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.1436 mL	5.7179 mL	11.4358 mL
	5 mM	0.2287 mL	1.1436 mL	2.2872 mL
	10 mM	0.1144 mL	0.5718 mL	1.1436 mL

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

BIOLOGICAL ACTIVITY

Description

DL-β-Hydroxybutyryl coenzyme A lithium is an intermediate in the fermentation of butyric acid and the metabolism of lysine and tryptophan, and is produced from β-hydroxybutyric acid by short-chain-CoA synthase[1][2].

In Vitro

DL-β-Hydroxybutyryl coenzyme A lithium (β-Hydroxybutyryl-CoA) can be produced as an intermediate metabolite via the mitochondrial pathway, where impaired mitochondrial function in cancer cells leads to the accumulation of it. At the same time, DL-β-Hydroxybutyryl coenzyme A lithium can also be produced via the fatty acid β-oxidation, which is accelerated by starvation and fasting, leading to the accumulation of it and thus to diseases caused by certain metabolic adaptations[1].

DL-β-Hydroxybutyryl coenzyme A lithium (β-Hydroxybutyryl-CoA) can act as a cofactor for lysine β-hydroxybutyrylation (Kbhb), with elevated levels of histone Kbhb in a streptozotocin (STZ)-induced type 1 diabetes mellitus (T1DM) mouse model [2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kevin B Koronowski, et al. Ketogenesis impact on liver metabolism revealed by proteomics of lysine β-hydroxybutyrylation. Cell Rep. 2021 Aug 3;36(5):109487.

[2]. Zhongyu Xie, et al. Metabolic Regulation of Gene Expression by Histone Lysine β-Hydroxybutyrylation. Mol Cell. 2016 Apr 21;62(2):194-206.

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