Product Data Sheet

Product Name: DL-beta-Hydroxybutyryl coenzyme A lithium salt
Cat. No.: GF13961

Chemical Properties

Cas. No.	103404-51-9		
Formula	C26H42N7O18P3S	M.Wt	853.62
Solubility	H_2O : 50 mg/mL (57.18 mM; Need ultrasonic and warming)	Storage	20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure

Background

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

DL-尾-Hydroxybutyryl coenzyme A lithium (尾-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-尾-Hydroxybutyryl coenzyme A

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lithium can also be produced via the fatty acid 尾-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-尾-Hydroxybutyryl coenzyme A lithium (尾-Hydroxybutyryl-CoA) can act as a cofactor for lysine 尾-hydroxybutyrylation (Kbhb), with elevated levels of histone Kbhb in a streptozotocin (STZ)-induced type 1 diabetes mellitus (T1DM) mouse model[2].

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

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

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