Product Data Sheet

Product Name: Propionyl coenzyme A lithium
Cat. No.: GC67633

Chemical Properties

Cas. No.	108321-21-7		
Formula	$C_{24}H_{40}LiN_7O_{17}P_3S$	M.Wt	
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Propionyl coenzyme A lithium		

Background

Propionyl coenzyme A lithium, a coenzyme A derivative of propionic acid, is an important metabolic intermediate formed by the thioester bond between coenzyme A and propionic acid. The breakdown and production of Propionyl coenzyme A lithim is important for the metabolism of organisms[1][2].

Propionyl coenzyme A lithium causes toxic effects due to its accumulation and the impact of its metabolism on cell wall synthesis and maintenance in *Mycobacterium tuberculosis*[1].
Propionyl coenzyme A lithium can be converted to β-hydroxypropionic acid via a peroxisomal enzyme-modified β-oxidation pathway in *Arabidopsis*[2].
Propionyl coenzyme A lithium causes the formation of propionic acidemia due to its abnormal accumulation, which often occurs in the neonatal developmental stage[3].

[1]. Ernesto J MuÑoz-ElÍas, et al. Role of the methylcitrate cycle in Mycobacterium tuberculosis metabolism, intracellular growth, and virulence. Mol Microbiol. 2006 Jun;60(5):1109-22.
[2]. Kerry A Lucas, et al. Peroxisomal metabolism of propionic acid and isobutyric acid in plants. J Biol Chem. 2007 Aug 24;282(34):24980-9.

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[3]. Oleg A Shchelochkov, et al. Propionic Acidemia. 2012 May 17 [updated 2016 Oct 6]. In: Adam MP, Everman DB, Mirzaa GM, Pagon RA, Wallace SE, Bean LJH, Gripp KW, Amemiya A, editors. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1

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