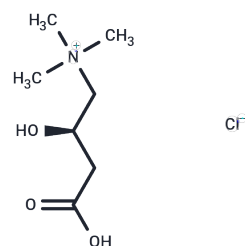


L-Carnitine hydrochloride

Chemical Properties

CAS No. :	6645-46-1
Formula:	C ₇ H ₁₆ ClNO ₃
Molecular Weight:	197.66
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	L-Carnitine hydrochloride ((R)-Carnitine hydrochloride) is a highly polar small zwitterionic molecule that functions as an essential cofactor for mitochondrial β -oxidation. L-Carnitine hydrochloride facilitates the transport of long-chain fatty acyl-CoAs into mitochondria for subsequent degradation via β -oxidation, thereby supporting cellular energy metabolism. L-Carnitine hydrochloride also displays antioxidant activity and can mitigate metabolic imbalances associated with numerous inborn errors of metabolism, positioning it as an important agent in metabolic research.
Targets(IC50)	Others,Endogenous Metabolite
In vivo	L-Carnitine hydrochloride (125, 250 mg/kg) administered via intraperitoneal injection in a chronic mouse asthma model demonstrated more pronounced bronchodilatory effects and effectively reduced LTE4 excretion in oliguria fluid. [4]

Solubility Information

Solubility	H ₂ O: 135 mg/mL (682.99 mM),Sonication is recommended. DMSO: Soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0592 mL	25.296 mL	50.5919 mL
5 mM	1.0118 mL	5.0592 mL	10.1184 mL
10 mM	0.5059 mL	2.5296 mL	5.0592 mL
50 mM	0.1012 mL	0.5059 mL	1.0118 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ghalwash M, et al. Effect of L-carnitine on the skeletal muscle contractility in simvastatin-induced myopathy in rats. *J Basic Clin Physiol Pharmacol*. 2018 Sep 25;29(5):483-491.

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Chen S, et al. Metabolomic analysis of the toxic effect of chronic exposure of cadmium on rat urine. *Environ Sci Pollut Res Int*. 2018 Feb;25(4):3765-3774.

Ferreira GC, et al. L-Carnitine and Acetyl-L-carnitine Roles and Neuroprotection in Developing Brain. *Neurochem Res*. 2017 Jun;42(6):1661-1675.

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