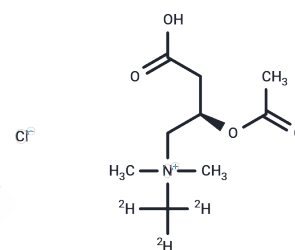


Acetyl L-Carnitine-D3 hydrochloride

Chemical Properties

CAS No. :	1334532-17-0
Formula:	C ₉ H ₁₅ D ₃ ClNO ₄
Molecular Weight:	242.72
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Acetyl L-Carnitine-D3 hydrochloride is a deuterated compound suitable for isotope tracing. Acetyl L-Carnitine is an orally effective mitochondrial function modulator and neuroprotective agent that crosses the blood-brain barrier, suitable for brain injury research.
Targets(IC50)	Mitochondrial Metabolism, Endogenous Metabolite, Immunology/Inflammation related

Solubility Information

Solubility	DMSO: 24 mg/mL (98.88 mM), Sonication is recommended. H ₂ O: 80 mg/mL (329.6 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.120 mL	20.5999 mL	41.1997 mL
5 mM	0.824 mL	4.120 mL	8.2399 mL
10 mM	0.412 mL	2.060 mL	4.120 mL
50 mM	0.0824 mL	0.412 mL	0.824 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

Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

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Wang SM, et al. A review of current evidence for acetyl-L-carnitine in the treatment of depression. *J Psychiatr Res.* 2014 Jun;53:30-7.

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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