Data Sheet (Cat.No.T21655)

TargetMol

(±)-Acetylcarnitine chloride

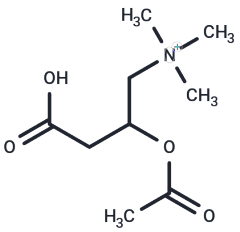
Chemical Properties

CAS No. : 2504-11-2

Formula: C9H18ClNO4

Molecular Weight: 239.7

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	(±)-Acetylcarnitine chloride (Acetyl dl-carnitine chloride) is a weak cholinergic agonist with neuroprotective properties and can be used in studies of neuritis.
Targets(IC50)	AChR,Cholinesterase (ChE)
In vitro	(±)-Acetylcarnitine chloride increase significantly during fly flight, and acetylcarnitine transferase is active, indicating that acetylcarnitine plays an important role in carbohydrate metabolism. Acetylcarnitine is synthesized by the choline acetylase system isolated from brain tissue and is broken down by cholinesterase. [1]
In vivo	In rats, infusion of 2 mg of (±)-acetylcarnitine chloride reduced hindlimb blood flow by 50%. (±)-Acetylcarnitine chloride also potentiated the inhibitory effect of adrenaline on isolated rabbit duodenum[2].

Solubility Information

Solubility	H2O: 166.7 mg/mL (695.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1719 mL	20.8594 mL	41.7188 mL
5 mM	0.8344 mL	4.1719 mL	8.3438 mL
10 mM	0.4172 mL	2.0859 mL	4.1719 mL
50 mM	0.0834 mL	0.4172 mL	0.8344 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

R L Sass, et al. Acetylcarnitine: on the relationship between structure and function. Biochem Biophys Res Commun. 1973 Dec 10;55(3):736-42.

R T Louis-Ferdinand, et al. Flow decrease through rat hind limb vasculature by (plus or minus)-carnitine, (plus or minus)-acetylcarnitine and (plus or minss)-chloroacetylcarnitine chlorides. J Pharm Pharmacol. 1970 Sep;22(9): 704-5.

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