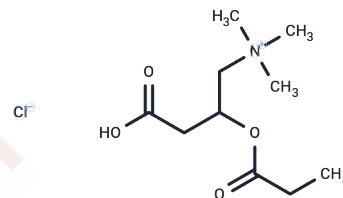


**(±)-Propionylcarnitine chloride****Chemical Properties**

CAS No. :	18828-58-5
Formula:	C <sub>10</sub> H <sub>20</sub> ClNO <sub>4</sub>
Molecular Weight:	253.72
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	(±)-Propionylcarnitine chloride (Propionyl-DL-carnitine chloride) is a mixture of short-chain acylcarnitines used as a dietary supplement for the study of chronic diabetes.
Targets(IC50)	Endogenous Metabolite
In vivo	In adult age-matched male C57BL/6 mice, (±)-Propionylcarnitine chloride (2 mM/kg; oral gavage; 2 mM/kg/day for 4 weeks) increased the total carnitine concentrations in plasma and urine of mice, but showed no effect on the skeletal muscle carnitine content of mice.

**Solubility Information**

Solubility	DMSO: 80 mg/mL (315.31 mM), Sonification is recommended. Methanol: 100 mg/mL (394.14 mM), Sonification is recommended. H <sub>2</sub> O: 8 mg/mL (31.53 mM), Sonification 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	3.9414 mL	19.7068 mL	39.4135 mL
5 mM	0.7883 mL	3.9414 mL	7.8827 mL
10 mM	0.3941 mL	1.9707 mL	3.9414 mL
50 mM	0.0788 mL	0.3941 mL	0.7883 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

- Palmieri L, et al. Protection of beta-thalassaemic erythrocytes from oxidative stress by propionyl carnitine. *Int J Tissue React.* 1994;16(3):121-9.
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- Morand R, et al. Effect of carnitine, acetyl-, and propionylcarnitine supplementation on the body carnitine pool, skeletal muscle composition, and physical performance in mice. *Eur J Nutr.* 2014 Sep;53(6):1313-25.
- Bertelli A, et al. Effect of propionyl carnitine on energy charge and adenine nucleotide content of cardiac endothelial cells during hypoxia. *Int J Tissue React.* 1991;13(1):37-40.

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