## Isovalerylcarnitine chloride

Cat. No.:	HY-145542	
CAS No.:	139144-12-0	
Molecular Formula:	C <sub>12</sub> H <sub>24</sub> ClNO <sub>4</sub>	$N^{+}$
Molecular Weight:	281.78	
Target:	Endogenous Metabolite; Proteasome	
Pathway:	Metabolic Enzyme/Protease	
Storage:	4°C, sealed storage, away from moisture	O' OH
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)	

## SOLVENT & SOLUBILITY

In Vitro	0.	DMSO : ≥ 100 mg/mL (354.89 mM) * "≥" means soluble, but saturation unknown.				
		Mass Solvent Concentration	1 mg	5 mg	10 mg	
	Preparing Stock Solutions	1 mM	3.5489 mL	17.7443 mL	35.4887 mL	
		5 mM	0.7098 mL	3.5489 mL	7.0977 mL	
		10 mM	0.3549 mL	1.7744 mL	3.5489 mL	
	Please refer to the so	Please refer to the solubility information to select the appropriate solvent.				
In Vivo		1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.87 mM); Clear solution				
		2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.87 mM); Clear solution				
		3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.87 mM); Clear solution				

BIOLOGICAL ACTIVITY					
Description	Isovalerylcarnitine chloride, a product of the catabolism of L-leucine, is a potent activator of the Ca <sup>2+</sup> -dependent proteinase (calpain) of human neutrophils <sup>[1]</sup> .				
IC <sub>50</sub> & Target	Human Endogenous Metabolite				

## REFERENCES



[1]. Pontremoli S, et al. Isovalerylcarnitine is a specific activator of calpain of human neutrophils. Biochem Biophys Res Commun. 1987 Nov 13;148(3):1189-95.

## Caution: Product has not been fully validated for medical applications. For research use only.

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