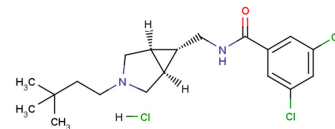


## ML218 hydrochloride

## Chemical Properties

CAS No.:	2319922-08-0
Formula:	C <sub>19</sub> H <sub>27</sub> Cl <sub>3</sub> N <sub>2</sub> O
Molecular Weight:	405.79
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	ML218 hydrochloride is a selective and orally active T-type Ca <sup>2+</sup> channels (Cav3.1, Cav3.2, Cav3.3) inhibitor (Cav3.2 and Cav3.3 with IC <sub>50</sub> s of 310 nM and 270 nM, respectively).
Targets(IC <sub>50</sub> )	Cav3.2: 310 nM Cav3.3: 270 nM Ca <sup>2+</sup> flux: 150 nM
In vitro	Intrinsic clearance experiments in liver microsomes indicated that ML218 is highly cleared in rat (CL <sub>int</sub> = 115 mL/min/kg), but low to moderately cleared in human liver microsomes (CL <sub>int</sub> = 12.7 mL/min/kg)[1].
In vivo	Free brain and plasma concentrations of ML218 increases in a dose proportional manner across the dose range (3 mg/kg: [plasma] = 98 nM, [brain] = 1.66 μM; 10 mg/kg: [plasma] = 282 nM, [brain] = 5.03 μM; 30 mg/kg: 1.2 μM, [brain] = 17.7 μM)[1].

## Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.464 mL	12.322 mL	24.643 mL
5 mM	0.493 mL	2.464 mL	4.929 mL
10 mM	0.246 mL	1.232 mL	2.464 mL
50 mM	0.049 mL	0.246 mL	0.493 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

1. Xiang Z, et al. The Discovery and Characterization of ML218: A Novel, Centrally Active T-Type Calcium Channel Inhibitor with Robust Effects in STN Neurons and in a Rodent Model of Parkinson's Disease. ACS Chem Neurosci. 2011 Dec 21;2(12):730-742.

Inhibitors · Natural Compounds · Compound Libraries

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