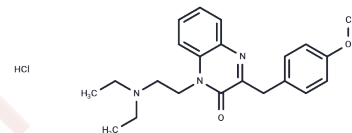


## Caroverine hydrochloride

### Chemical Properties

CAS No. :	55750-05-5
Formula:	C <sub>22</sub> H <sub>28</sub> ClN <sub>3</sub> O <sub>2</sub>
Molecular Weight:	401.9
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	Caroverine hydrochloride (Caroverine HCL) is a potent, competitive and reversible antagonist of NMDA and AMPA glutamate receptor. It is also an antioxidant and calcium-blocking agent that exhibits vasorelaxant action, and can be used for the research of inner ear tinnitus.
Targets(IC50)	GluR,NMDAR,iGluR
In vivo	Caroverine (1 μM; pretreated for 10 min) inhibits the pressor response to KCl (80 mM) and noradrenaline (1 μM) in the rat hindquarter preparation. Caroverine markedly suppresses the contraction caused by KCl (40 mM) in the rat isolated aorta[1].Caroverine (1.44 mg/rat; s.c; 1.0 mL/h for 72 h) attenuates impulse noise-induced hearing loss in the rat[2]

### Solubility Information

Solubility	DMSO: 100 mg/mL (248.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (9.95 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.4882 mL	12.4409 mL	24.8818 mL
5 mM	0.4976 mL	2.4882 mL	4.9764 mL
10 mM	0.2488 mL	1.2441 mL	2.4882 mL
50 mM	0.0498 mL	0.2488 mL	0.4976 mL

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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

Ishida Y, et, al. Vasorelaxant action of caroverine fumarate (a quinoxaline derivative), a calcium-blocking agent. *Br J Pharmacol.* 1980;71(1):343-8.

Duan M, et, al. Low-dose, long-term caroverine administration attenuates impulse noise-induced hearing loss in the rat. *Acta Otolaryngol.* 2006 Dec;126(11):1140-7.

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