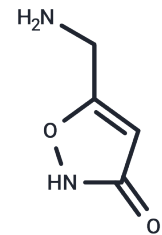


Muscimol hydrochloride

Chemical Properties

CAS No. :	3579-03-1
Formula:	C ₄ H ₇ ClN ₂ O ₂
Molecular Weight:	150.56
Storage:	Keep away from direct sunlight, Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

HCl



Biological Description

Description	Muscimol hydrochloride is the salt form of Muscimol, the main psychoactive component of Amanita muscaria, a potent and selective GABAA receptor agonist and partial GABAC receptor agonist, with no activity on GABAB receptors. It is commonly used in central neuroscience research, with analgesic, anxiolytic and neuroprotective effects, with the advantage of being able to cross the blood-brain barrier and can be taken orally.
Targets(IC50)	GABA Receptor
In vivo	<p>Methods: In separate experiments, guinea pigs were pretreated with the selective GABAA antagonist gabazine (3.75 mg/kg, iv) 10 min before control values of the intravenous acetylcholine-induced increase in Ppi were established; Muscimol hydrochloride (187 µg/kg, iv) was then administered 1 min before the subsequent intravenous acetylcholine challenge to investigate the effect of Muscimol hydrochloride on the increase in Ppi induced by intravenous acetylcholine.</p> <p>Results: Pretreatment with Muscimol hydrochloride (3.75-187 µg/kg) 1 min before the subsequent intravenous acetylcholine challenge significantly reduced the increase in Ppi induced by acetylcholine at each dose tested. [4]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.6419 mL	33.2094 mL	66.4187 mL
5 mM	1.3284 mL	6.6419 mL	13.2837 mL
10 mM	0.6642 mL	3.3209 mL	6.6419 mL
50 mM	0.1328 mL	0.6642 mL	1.3284 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

- Johnston GA. Muscimol as an ionotropic GABA receptor agonist. *Neurochem Res.* 2014 Oct;39(10):1942-7.
- Sun W, et al. Muscimol-induced inactivation of the ventral prefrontal cortex impairs counting performance in rhesus monkeys. *Sci Prog.* 2022 Oct-Dec;105(4):368504221141660.
- Pezze MA, et al. Muscimol-induced inactivation of the anterior cingulate cortex does not impair trace fear conditioning in the rat. *J Psychopharmacol.* 2020 Dec;34(12):1457-1460.
- Gleason NR, et al. The GABAA agonist muscimol attenuates induced airway constriction in guinea pigs in vivo. *J Appl Physiol (1985).* 2009 Apr;106(4):1257-63.

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