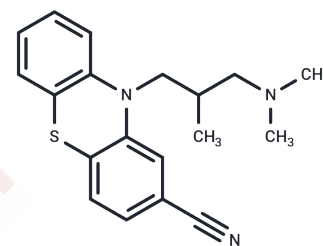


## Cyamemazine

## Chemical Properties

CAS No. :	3546-03-0
Formula:	C19H21N3S
Molecular Weight:	323.46
Storage:	Store under nitrogen
	Pure form: -20°C for 3 years   In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Cyamemazine is an antipsychotic compound with sedative and anxiolytic activity. Cyamemazine is a 5-HT <sub>3</sub> , 5-HT <sub>2A</sub> , and 5-HT <sub>2C</sub> receptor antagonist with K <sub>i</sub> values of 12 nM, 1.5 nM, and 75 nM, respectively.
Targets(IC50)	5-HT Receptor
In vitro	<b>METHODS:</b> The antagonistic effects of Cyamemazine on various receptors, such as D <sub>2</sub> , 5-HT <sub>2A</sub> , 5-HT <sub>2C</sub> , and 5-HT <sub>3</sub> receptors, were determined through binding experiments. <b>RESULTS:</b> Cyamemazine showed strong antagonistic effects on D <sub>2</sub> and 5-HT <sub>2A</sub> receptors, and relatively weaker antagonistic effects on 5-HT <sub>2C</sub> and 5-HT <sub>3</sub> receptors. This receptor activity is associated with its anxiolytic effects [1].
In vivo	<b>METHODS:</b> The Elevated Plus Maze (EPM) test was conducted in mice to evaluate the anxiolytic-like behavior of Cyamemazine under acute and chronic dosing conditions. <b>RESULTS:</b> In the acute dosing condition, Cyamemazine exhibited anxiolytic-like activity in the light/dark exploration test. In the chronic dosing condition, it increased the time spent in the open arms of the Elevated Plus Maze, demonstrating its anxiolytic effects [1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (247.33 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: 3.3 mg/mL (10.2 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	3.0916 mL	15.4579 mL	30.9157 mL
5 mM	0.6183 mL	3.0916 mL	6.1831 mL
10 mM	0.3092 mL	1.5458 mL	3.0916 mL
50 mM	0.0618 mL	0.3092 mL	0.6183 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

- Bourin M, et al. Preclinical and clinical pharmacology of cyamemazine: anxiolytic effects and prevention of alcohol and benzodiazepine withdrawal syndrome. *CNS Drug Rev.* 2004 Fall;10(3):219-29.
- Vendrell-Criado V, et al. Photobehavior of the antipsychotic drug cyamemazine in a supramolecular gel protective environment. *J Photochem Photobiol B.* 2020 Jan;202:111686.
- Hameg A, et al. Affinity of cyamemazine, an anxiolytic antipsychotic drug, for human recombinant dopamine vs. serotonin receptor subtypes. *Biochem Pharmacol.* 2003 Feb 1;65(3):435-40.

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