

Clomipramine

Chemical Properties

CAS No. : 303-49-1

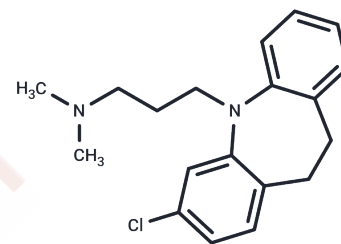
Formula: C₁₉H₂₃ClN₂

Molecular Weight: 314.85

Keep away from moisture

Storage: 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	Clomipramine (Clomicalm) is a tricyclic antidepressant (TCA). It is used for the treatment of the panic disorder, obsessive-compulsive disorder, major depressive disorder, and chronic pain. It may decrease the risk of suicide in those over the age of 65. It is similar to Imipramine in that selective inhibition of the serotonin uptake in the brain.
Targets(IC50)	5-HT Receptor, Serotonin Transporter

Solubility Information

Solubility	DMSO: 120 mg/mL (381.13 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: 2 mg/mL (6.35 mM), Sonication is recommended. 10% DMSO+90% Saline: 10 mg/mL (31.76 mM), Solution. <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

	1mg	5mg	10mg
1 mM	3.1761 mL	15.8806 mL	31.7612 mL
5 mM	0.6352 mL	3.1761 mL	6.3522 mL
10 mM	0.3176 mL	1.5881 mL	3.1761 mL
50 mM	0.0635 mL	0.3176 mL	0.6352 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

- Yildirim EA, Hacıoglu Yildirim M, Carpar E, Sarac I. Clomipramine trial for treatment-resistant persistent genital arousal disorder: a case series. *J Psychosom Obstet Gynaecol*. 2017 Dec;38(4):260-267. doi: 10.1080/0167482X.2017.1296427. Epub 2017 Mar 3. PubMed PMID: 28635538.
- Brown JT, Schneiderhan M, Eum S, Bishop JR. Serum clomipramine and desmethylclomipramine levels in a CYP2C19 and CYP2D6 intermediate metabolizer. *Pharmacogenomics*. 2017 May;18(7):601-605. doi: 10.2217/pgs-2017-0015. Epub 2017 May 4. Review. PubMed PMID: 28470111.
- Hatalova H, Radostova D, Pistikova A, Vales K, Stuchlik A. Detrimental effect of clomipramine on hippocampus-dependent learning in an animal model of obsessive-compulsive disorder induced by sensitization with d2/d3 agonist quinpirole. *Behav Brain Res*. 2017 Jan 15;317:210-217. doi: 10.1016/j.bbr.2016.09.042. Epub 2016 Sep 19. PubMed PMID: 27659555.
- Varigonda AL, Jakubovski E, Bloch MH. Systematic Review and Meta-Analysis: Early Treatment Responses of Selective Serotonin Reuptake Inhibitors and Clomipramine in Pediatric Obsessive-Compulsive Disorder. *J Am Acad Child Adolesc Psychiatry*. 2016 Oct;55(10):851-859.e2. doi: 10.1016/j.jaac.2016.07.768. Epub 2016 Aug 4. Review. PubMed PMID: 27663940.

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