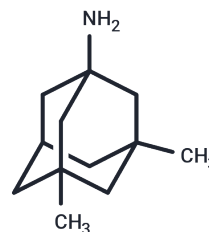


Memantine

Chemical Properties

CAS No. :	19982-08-2
Formula:	C ₁₂ H ₂₁ N
Molecular Weight:	179.3
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	Memantine, an amantadine derivative with some dopaminergic effects, has been proposed as an antiparkinson agent and has may be used to treat moderate to severe Alzheimer's disease. It acts on the glutamatergic system by blocking NMDA receptors.
Targets(IC50)	Others,iGluR

Solubility Information

Solubility	DMSO: 250 mg/mL (1394.31 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: 1 mg/mL (5.58 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

	1mg	5mg	10mg
1 mM	5.5772 mL	27.8862 mL	55.7724 mL
5 mM	1.1154 mL	5.5772 mL	11.1545 mL
10 mM	0.5577 mL	2.7886 mL	5.5772 mL
50 mM	0.1115 mL	0.5577 mL	1.1154 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

Chen R, Chan PT, Chu H, Lin YC, Chang PC, Chen CY, Chou KR. Treatment effects between monotherapy of donepezil versus combination with memantine for Alzheimer disease: A meta-analysis. PLoS One. 2017 Aug 21;12(8):e0183586.

Deardorff WJ, Grossberg GT. A fixed-dose combination of memantine extended-release and donepezil in the treatment of moderate-to-severe Alzheimer's disease. Drug Des Devel Ther. 2016 Oct 3;10:3267-3279. eCollection 2016. Review. PubMed PMID: 27757016; PubMed Central PMCID: PMC5055113.

Greig SL. Memantine ER/Donepezil: A Review in Alzheimer's Disease. CNS Drugs. 2015 Nov;29(11):963-70. doi: 10.1007/s40263-015-0287-Review. PubMed PMID: 26519339.

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