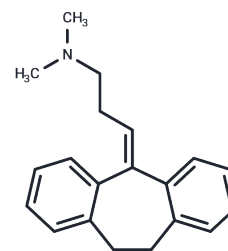


Amitriptyline

Chemical Properties

CAS No. :	50-48-6
Formula:	C ₂₀ H ₂₃ N
Molecular Weight:	277.4
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	Amitriptyline (MK-230, N-750, Ro41575) is a tricyclic antidepressant (TCA) with analgesic properties. Amitriptyline is widely used to treat depression and neuropathic pain.
Targets(IC50)	Others, 5-HT Receptor, Adrenergic Receptor, AChR, Norepinephrine, Histamine Receptor, Serotonin Transporter, Sigma receptor, Sodium Channel, Trk receptor
In vitro	Amitriptyline inhibits both serotonin transporter (SERT) and norepinephrine transporter (NET) with K_i of 3.45 nM and 13.3 nM, respectively. Amitriptyline is also an inhibitor of histamine receptor H ₁ , histamine receptor H ₄ , 5-HT ₂ and sigma 1 receptor with K_i of 0.5 nM, 7.31 nM, 235 nM and 287 nM, respectively.

Solubility Information

Solubility	H ₂ O: 9.7 mg/mL (34.97 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 (7.21 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	3.6049 mL	18.0245 mL	36.049 mL
5 mM	0.721 mL	3.6049 mL	7.2098 mL
10 mM	0.3605 mL	1.8025 mL	3.6049 mL
50 mM	0.0721 mL	0.3605 mL	0.721 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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