Amantadine hydrochloride

Cat. No.: HY-B0402A

CAS No.: 665-66-7

Molecular Formula: $C_{10}H_{18}ClN$

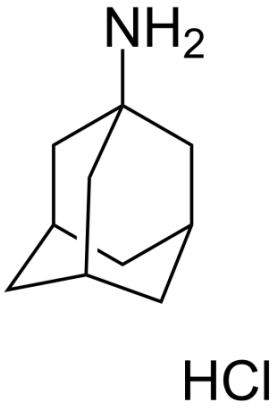
Molecular Weight: 187.71

Target: Influenza Virus

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (**532.74 mM**; Need ultrasonic)

H_2O : ≥ 50 mg/mL (**266.37 mM**)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.3274 mL	26.6368 mL	53.2737 mL
5 mM	1.0655 mL	5.3274 mL	10.6547 mL
10 mM	0.5327 mL	2.6637 mL	5.3274 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Amantadine Hydrochloride is an antiviral and an antiparkinsonian drug.Target: Influenza VirusAmantadine Hydrochloride is an antiviral that is used in the prophylactic or symptomatic treatment of influenza A. It is also used as an antiparkinsonian agent, to treat extrapyramidal reactions, and for postherpetic neuralgia. Amantadine Hydrochloride binding of M2, based on studies of a peptide representing the M2 transmembrane segment in dodecylphosphocholine micelles. Amantadine Hydrochloride competes with protons for binding to the deprotonated tetramer, thereby stabilizing the tetramer in a slightly altered conformation. This model accounts for the observed inhibition of proton flux by amantadine [1]. In contrast to most other described channel-blocking molecules, amantadine causes the channel gate of NMDA receptors to close more quickly. Amantadine Hydrochloride binding inhibits current flow through NMDA receptor channels but show that its main inhibitory action at pharmaceutically relevant concentrations results from stabilization of closed states of the channel [2].

CUSTOMER VALIDATION

- **Int J Nanomedicine**. 2019 Nov 27;14:9217-9234.

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REFERENCES

[1]. Salom, D., et al., pH-dependent tetramerization and amantadine binding of the transmembrane helix of M2 from the influenza A virus. Biochemistry, 2000. 39(46): p. 14160-70.

[2]. Blanpied, T.A., R.J. Clarke, and J.W. Johnson, Amantadine inhibits NMDA receptors by accelerating channel closure during channel block. J Neurosci, 2005. 25(13): p. 3312-22.

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