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DATASHEET

Amantadine hydrochloride

Product overview

Name	Amantadine hydrochloride
Cat No	HB0109
Description	Non-competitive NMDA receptor antagonist
Biological action	Antagonist
Purity	>98%

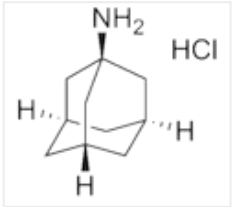
Biological Data

Biological description	Non-competitive NMDA receptor antagonist (IC_{50} = approx 35 µM). May also block serotonin uptake. Shows antiviral effects in vivo. Acts as a dopaminergic agent with anti-parkinsonian effects; suppresses L-DOPA-induced dyskinesia. Induces D_2 and D_3 receptor up-regulation. Blood-brain barrier permeable.

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in water (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	Adamantan-1-amine hydrochloride
Molecular Weight	187.71
Chemical structure	
Molecular Formula	$C_{10}H_{17}N.HCl$
CAS Number	665-66-7
PubChem identifier	64150
SMILES	C1C2CC3CC1CC(C2)(C3)N.Cl
InChi	InChI=1S/C10H17N.ClH/c11-10-4-7-1-8(5-10)3-9(2-7)6-10;/h7-9H,1-6,11H2;1H
InChiKey	WOLHOYHSEKDWQH-UHFFFAOYSA-N
MDL number	MFCD00074723

References

Amantadine inhibits NMDA receptors by accelerating channel closure during channel block.

Blanpied et al (2005) J Neurosci 25(13)

PubMedID 15800186

Effect of combined treatment with imipramine and amantadine on the central dopamine D2 and D3 receptors in rats.

Rogoz et al (2003) J Physiol Pharmacol. 54(2)
PubMedID 12832726

Functional studies indicate amantadine binds to the pore of the influenza A virus M2 proton-selective ion channel.

Jing et al (2008) Proc Natl Acad Sci U S A 105(31)
PubMedID 18669647