

Hello Bio, Inc.  
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500  
F. 609-228-4994

customercare-usa@hellobio.com



## DATASHEET

### Amantadine hydrochloride

#### Product overview

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

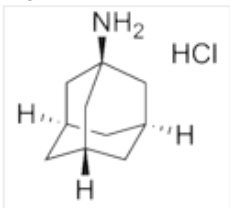
#### Biological Data

<b>Biological description</b>	Non-competitive NMDA receptor antagonist ( $IC_{50}$ = approx 35 $\mu$ M). 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.
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#### Solubility & Handling

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

#### Chemical Data

<b>Chemical name</b>	Adamantan-1-amine hydrochloride
<b>Molecular Weight</b>	187.71
<b>Chemical structure</b>	 The chemical structure shows the adamantane cage system with an amino group (-NH2) attached to the bridgehead carbon at position 1. The structure is shown as a hydrochloride salt, with "HCl" written next to it. Stereochemistry is indicated with wedges and dashes for the bridgehead hydrogens.
<b>Molecular Formula</b>	$C_{10}H_{17}N.HCl$
<b>CAS Number</b>	665-66-7
<b>PubChem identifier</b>	64150
<b>SMILES</b>	<chem>C1C2CC3CC1CC(C2)(C3)N.Cl</chem>
<b>InChi</b>	InChI=1S/C10H17N.ClH/c11-10-4-7-1-8(5-10)3-9(2-7)6-10;/h7-9H,1-6,11H2;1H
<b>InChiKey</b>	WOLHOYHSEKDWQH-UHFFFAOYSA-N
<b>MDL number</b>	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](#)

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