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# DATASHEET

## VU 0357017 hydrochloride

### Product overview

<b>Name</b>	VU 0357017 hydrochloride
<b>Cat No</b>	HB1498
<b>Biological action</b>	Agonist
<b>Purity</b>	>98%
<b>Description</b>	Potent, selective M <sub>1</sub> receptor allosteric agonist

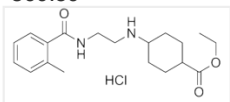
### Biological Data

<b>Biological description</b>	Potent and selective M <sub>1</sub> muscarinic receptor allosteric agonist (EC <sub>50</sub> = 198 nM). Binds to the orthosteric ACh site at high concentrations to act as an antagonist. Reverses contextual fear conditioning deficits. Shows cognitive enhancing actions. Blood-brain barrier permeable.
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### Solubility & Handling

<b>Storage instructions</b>	+4 °C
<b>Solubility overview</b>	Soluble in water (25mM) or DMSO (5mM)
<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>	4-[[[2-[(2-Methylbenzoyl)amino]ethyl]amino]-1-piperidinecarboxylic acid ethyl ester hydrochloride
<b>Molecular Weight</b>	369.89
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>18</sub> H <sub>27</sub> N <sub>3</sub> O <sub>3</sub> ·HCl
<b>CAS Number</b>	1135242-13-5
<b>PubChem identifier</b>	25010775
<b>SMILES</b>	CC1=CC=CC=C1C(NCCNC2CCN(C(OCC)=O)CC2)=O.Cl
<b>InChiKey</b>	XKJQVUIXSBOCPP-UHFFFAOYSA-N

### References

**Discovery and characterization of novel subtype-selective allosteric agonists for the investigation of M(1) receptor function in the central nervous system.**

Lebois EP *et al* (2010) ACS Chem Neurosci 1(2)  
**PubMedID** [21961051](#)

**Novel allosteric agonists of M1 muscarinic acetylcholine receptors induce brain region-specific responses that correspond with behavioral effects in animal models.**

Digby GJ *et al* (2012) J Neurosci 32(25)

PubMedID

22723693

**Further exploration of M<sub>1</sub> allosteric agonists: subtle structural changes abolish M<sub>1</sub> allosteric agonism and result in pan-mAChR orthosteric antagonism.**

Sheffler DJ *et al* (2013) *Bioorg Med Chem Lett* 23(1)

PubMedID

23200253

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