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## DATASHEET

4-DAMP

### Product overview

<b>Name</b>	4-DAMP
<b>Cat No</b>	HB1505
<b>Biological action</b>	Antagonist
<b>Purity</b>	>99%
<b>Description</b>	Selective M <sub>3</sub> receptor antagonist

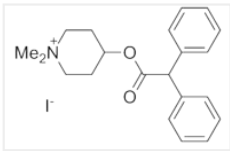
### Biological Data

<b>Biological description</b>	Selective M <sub>3</sub> muscarinic receptor antagonist. Blocks [ <sup>3</sup> H]-scopolamine binding to muscle cells expressing M <sub>3</sub> and M <sub>2</sub> (IC <sub>50</sub> values are 0.4 nM and 15 μM respectively).
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### Solubility & Handling

<b>Storage instructions</b>	Room temperature
<b>Solubility overview</b>	Soluble in DMSO (25mM)
<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>	1,1-Dimethyl-4-diphenylacetoxypiperidinium iodide
<b>Molecular Weight</b>	451.33
<b>Chemical structure</b>	
<b>Molecular Formula</b>	C <sub>21</sub> H <sub>26</sub> INO <sub>2</sub>
<b>CAS Number</b>	1952-15-4
<b>PubChem identifier</b>	3014059
<b>SMILES</b>	[I-].[C[N+](C)CCC(CC1)OC(=O)C(C1=CC=CC=C1)C1=CC=CC=C1
<b>InChi</b>	InChI=1S/C21H26NO2.HI/c1-22(2)15-13-19(14-16-22)24-21(23)20(17-9-5-3-6-10-17)18-11-7-4-8-12-18;/h3-12,19-20H,13-16H2,1-2H3;1H/q+1;/p-1
<b>InChiKey</b>	WWJHRSCUAQPFQO-UHFFFAOYSA-M
<b>MDL number</b>	MFCD00078564
<b>Appearance</b>	White solid

### References

**Differential coupling of muscarinic m2 and m3 receptors to adenylyl cyclases V/VI in smooth muscle. Concurrent M2-mediated inhibition via Galphai3 and m3-mediated stimulation via Gbetagammaq.**

Murthy KS *et al* (1997) J Biol Chem 272(34)

**PubMedID** [9261144](#)

**The use of a modified [3H]4-DAMP radioligand binding assay with increased selectivity for muscarinic M3 receptor shows that cortical CHRM3 levels are not altered in mood disorders.**

Jeon WJ *et al* (2013) *Prog Neuropsychopharmacol Biol Psychiatry* 47

**PubMedID** [23962466](#)

**Regional binding of 4-diphenylacetoxy-N-methylpiperidine methobromide (4-DAMP) to muscarinic receptors in rat brain and comparative analysis of minimum energy conformations.**

Collins D *et al* (1993) *Neurochem Int* 22(3)

**PubMedID** [8443567](#)

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