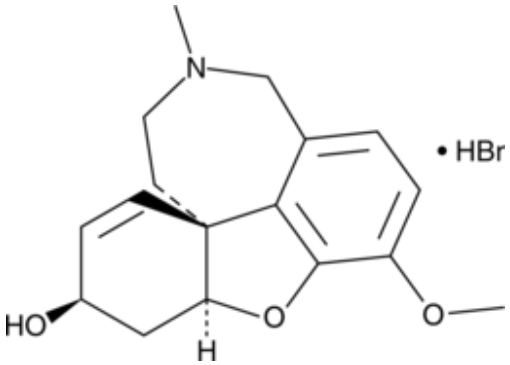
Product Data Sheet

Product Name: Galantamine (hydrobromide)
Cat. No.: GC52078

Chemical Properties

Cas. No.	69353-21-5		
SMILES	COC1=C2C3=C(C=C1)CN(C)CC[C@@]34[C@@](C[C@H](C=C4)O)([H])O2.Br		
Formula	C17H21NO3 • HBr	M.Wt	368.3
Solubility	DMF: insol,DMSO: insol,Ethanol: insol,PBS (pH 7.2): 2 mg/ml	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Galantamine is an alkaloid that has been found in *Galanthus* and has acetylcholinesterase (AChE) inhibitory and nicotinic acetylcholine receptor (nAChR) potentiating activities.[1,2,3] It selectively inhibits AChE over butyrylcholinesterase (BChE; IC_{50}s = 636 and 8,404 nM, respectively).[2] Galantamine (0.5 µM) potentiates ACh-induced currents in HEK293 cells expressing human α4β2 subunit-containing nAChRs. *In vivo*, galantamine (1.3 mg/kg per day) decreases escape latency and path length in the Morris water maze in the APP23 transgenic mouse model of Alzheimer's disease.[4] Formulations containing galantamine have been used in the treatment of Alzheimer's disease.

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1.Harvey, A.L.The pharmacology of galanthamine and its analoguesPharmacol. Ther.68(1)113-128(1995) 2.Rook, Y., Schmidtke, K.U., Gaube, F., et al.Bivalent β-carbolines as potential multitarget anti-Alzheimer agentsJ. Med. Chem.53(9)3611-3617(2010) 3.Samochocki, M., Zerlin, M., Jostock, R., et al.Galantamine is an allosterically potentiating ligand of the human α4/β2 nAChRActa Neurol. Scand. Suppl.17668-73(2000) 4.Van Dam, D., and De Deyn, P.P.Cognitive evaluation of disease-modifying efficacy of galantamine and memantine in the APP23 modelEur. Neuropsychopharmacol.16(1)59-69(2006)

Caution: Product has not been fully validated for medical applications. For research use only.
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