

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

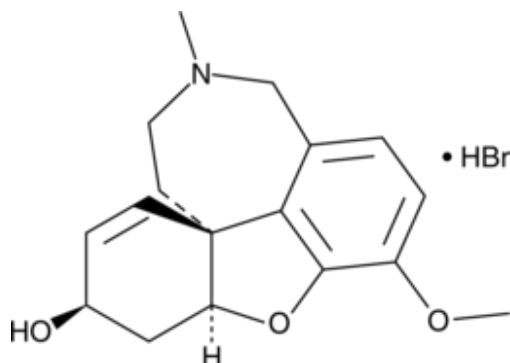
Formula C₁₇H₂₁NO₃ • HBr M.Wt 368.3

Solubility DMF: insol, DMSO: insol, Ethanol: Storage -20°C
insol, PBS (pH 7.2): 2 mg/ml

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; IC₅₀s = 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.

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

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1. Harvey, A.L. The pharmacology of galanthamine and its analogues *Pharmacol. Ther.* 68(1)113-128(1995)
2. Rook, Y., Schmidtke, K.U., Gaube, F., et al. Bivalent β -carboline as potential multitarget anti-Alzheimer agents *J. 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 $\alpha 4/\beta 2$ nAChR *Acta 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 model *Eur. Neuropsychopharmacol.* 16(1)59-69(2006)

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