

Product Data Sheet

Product Name: Galantamine-d₃ (hydrobromide)

Cat. No.: GC47389

Chemical Properties

Cas. No. 2140262-53-7

SMILES O[C@H]1C=C[C@]23[C@](OC4=C2C(CN(C)CC3)=CC=C4OC([2H])([2H])[2H])([H])C1.Br

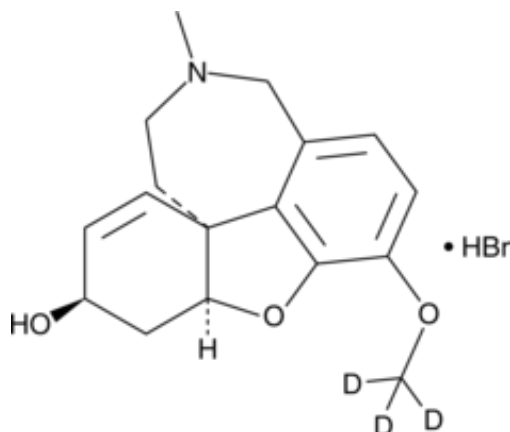
Formula C₁₇H₁₈D₃NO₃.HBr M.Wt 371.3

Solubility Chloroform: soluble Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Galantamine-d₃ is intended for use as an internal standard for the quantification of galantamine by GC- or LC-MS. Galantamine is an alkaloid originally isolated from the bulbs and flowers of *Galanthus* that inhibits acetylcholinesterase (AChE; IC₅₀ = 636 nM).¹ It reverses growth inhibition and inhibits apoptosis, autophagic flux, and production of reactive oxygen species (ROS) induced by amyloid-β (Aβ) in neuronally differentiated PC12 cells.² Galantamine prevents soman toxicity and inhibits acetylcholinesterase in cynomolgus macaques (ED₅₀s = 590 and 362 μg/kg, respectively).³ It also

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decreases escape latency in the Morris water maze and the total hippocampal area of A β plaques in an APP/PS1 transgenic mouse model of Alzheimer's disease.⁴

1.Rook, Y., Schmidtke, K.U., Gaube, F., et al.Bivalent β -carbolines as potential multitarget anti-Alzheimer agentsJournal of Medicinal Chemistry53(9)3611-3617(2010) 2.Jiang, S., Zhao, Y., Zhang, T., et al.Galantamine inhibits β -amyloid-induced cytostatic autophagy in PC12 cells through decreasing ROS productionCell Prolif.51(3)e12427(2018) 3.Hamilton, L.R., Schachter, S.C., and Myers, T.M.Time course, behavioral safety, and protective efficacy of centrally active reversible acetylcholinesterase inhibitors in cynomolgus macaquesNeurochem. Res.42(7)1962-1971(2017) 4.Wu, Z., Zhao, L., Chen, X., et al.Galantamine attenuates amyloid- β deposition and astrocyte activation in APP/PS1 transgenic miceExp. Gerontol.72244-250(2015)

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