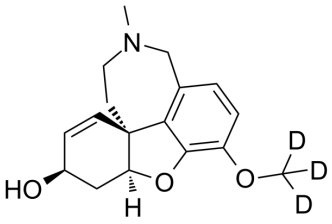
Galanthamine-O-methyl-d3

Cat. No.:	HY-76299S1
CAS No.:	1279031-09-2
Molecular Formula:	$C_{17}H_{18}D_3NO_3$
Molecular Weight:	290.37
Target:	AChE; Apoptosis
Pathway:	Neuronal Signaling; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Galanthamine-O-methyl-d3 is the deuterium labeled Galanthamine. Galanthamine is a potent acetylcholinesterase (AChE) inhibitor with an IC_{50} of 500 nM.
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Kita Y, et al. Galantamine increases hippocampal insulin-like growth factor 2 expression via α7 nicotinic acetylcholine receptors in mice. Psychopharmacology (Berl). 2013 Feb;225(3):543-51.

[3]. Melanie-Jayne R. Howes, et al. Acetylcholinesterase inhibitors of natural origin. International Journal of Research in Pharmaceutical and Biomedical Sciences 3(SI 1):67-86.

[4]. Kuryatov A, et al. Roles of accessory subunits in alpha4beta2(*) nicotinic receptors. Mol Pharmacol. 2008 Jul;74(1):132-43.

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