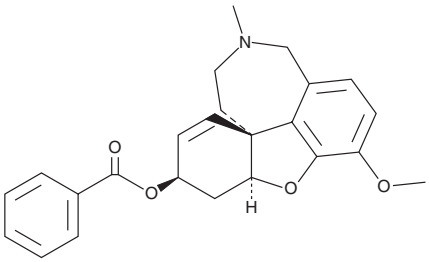
PRODUCT INFORMATION

GLN-1062

Item No. 41855

CAS Registry No.:	224169-27-1
Formal Name:	(4aS,6R,8aS)-6H-benzofuro[3a,3,2-ef][2]benzazepin-6-ol, 4a,5,9,10,11,12-hexahydro-3-methoxy-11-methyl-6-benzoate
Synonym:	Benzgalantamine
MF:	$C_{24}H_{25}NO_4$
FW:	391.5
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

GLN-1062 is supplied as a solid. A stock solution may be made by dissolving the GLN-1062 in the solvent of choice, which should be purged with an inert gas. GLN-1062 is soluble (≥10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in ethanol.

Description

GLN-1062 is a neuroprotective agent and prodrug form of galantamine (Item Nos. 17559 | 35247), an alkaloid with acetylcholine esterase (AChE) inhibitory and nicotinic acetylcholine (nAChR) potentiating activities.[1] It also is active against *M. tuberculosis* and *M. aurum* (MIC = 31.25 µg/ml for both).[2] GLN-1062 decreases the frequency of spontaneous alternations induced by the alkaloid scopolamine (Item No. 40307) in the T maze continuous alternation task in mice (ED_{50} = 0.34 mg/kg).[1] It inhibits increases in hippocampal and entorhinal cortex amyloid-β (Aβ) plaque densities in the 5XFAD transgenic mouse model of Alzheimer's disease when administered intranasally at a dose of 6 mg/kg per day.[3] Formulations containing GLN-1062 have been used in the treatment of Alzheimer's disease.

References

1. Maelicke, A., Hoeffle-Maas, A., Ludwig, J., *et al.* Memogain is a galantamine pro-drug having dramatically reduced adverse effects and enhanced efficacy. *J. Mol. Neurosci.* **40(1-2)**, 135-137 (2010).
2. Maafi, N., Mamun, A.A., Janďourek, O., *et al.* Semisynthetic derivatives of selected amaryllidaceae alkaloids as a new class of antimycobacterial agents. *Molecules* **26(19)**, 6023 (2021).
3. Bhattacharya, S., and Montag, D. Acetylcholinesterase inhibitor modifications: a promising strategy to delay the progression of Alzheimer's disease. *Neural. Regen. Res.* **10(1)**, 43-45 (2015).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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