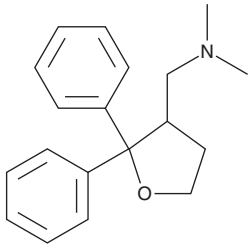
PRODUCT INFORMATION

Blarcamesine

Item No. 36812

CAS Registry No.: 195615-83-9
Formal Name: tetrahydro-N,N-dimethyl-2,2-diphenyl-3-furanmethanamine
Synonyms: AE37, AV2-73
MF: $C_{19}H_{23}NO$
FW: 281.4
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Blarcamesine is supplied as a crystalline solid. A stock solution may be made by dissolving the blarcamesine in the solvent of choice, which should be purged with an inert gas. Blarcamesine is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of blarcamesine in these solvents is approximately 30 mg/ml. Blarcamesine is slightly soluble in DMSO.

Description

Blarcamesine is an agonist of the sigma non-opioid intracellular receptor 1 (σ_1 receptor).[1] It inhibits reductions in mitochondrial oxygen consumption and lipid peroxidation induced by amyloid-β (Aβ) (25-35) (Aβ (25-35)) in isolated mouse hippocampus when administered at a dose of 1 mg/kg. Blarcamesine (1 mg/kg) improves deficits in novel object recognition induced by Aβ (25-35) in mice, as well as reduces tau phosphorylation and Aβ (1-42) levels in the hippocampus in the same model.[2] It increases the latency to fall in the rotarod test, reduces gait impairments, and reduces increases in the mean acoustic startle response in an *Mecp2*$^{-/-}$ mouse model of Rett syndrome, an X-linked neurodevelopmental disorder, when administered at a dose of 30 mg/kg per day.[3]

References

1. Lahmy, V., Long, R.M., Morin, D., *et al.* Mitochondrial protection by the mixed muscarinic/σ_1 ligand ANAVEX2-73, a tetrahydrofuran derivative, in $A\beta_{25-35}$ peptide-injected mice, a nontransgenic Alzheimer's disease model. *Front. Cell. Neurosci.* **8**, 463 (2015).
2. Lahmy, V., Meunier, J., Malström, S., *et al.* Blockade of Tau hyperphosphorylation and $A\beta_{1-42}$ generation by the aminotetrahydrofuran derivative ANAVEX2-73, a mixed muscarinic and σ_1 receptor agonist, in a nontransgenic mouse model of Alzheimer's disease. *Neuropsychopharmacology* **38(9)**, 17061723 (2013).
3. Kaufmann, W., Sprouse, J., Rebowe, N., *et al.* ANAVEX®2-73 (blarcamesine), a Sigma-1 receptor agonist, ameliorates neurologic impairments in a mouse model of Rett syndrome. *Pharmacol. Biochem. Behav.* **187**, 172796 (2019).

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