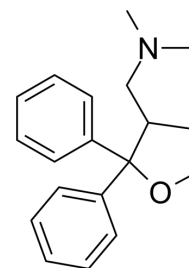


Blarcamesine hydrochloride

Cat. No.:	HY-101864
CAS No.:	195615-84-0
Molecular Formula:	C ₁₉ H ₂₄ ClNO
Molecular Weight:	317.85
Target:	Sigma Receptor
Pathway:	Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



H-Cl

SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (314.61 mM; Need ultrasonic)
DMSO : 25 mg/mL (78.65 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
	1 mM		3.1461 mL	15.7307 mL	31.4614 mL
	5 mM		0.6292 mL	3.1461 mL	6.2923 mL
	10 mM		0.3146 mL	1.5731 mL	3.1461 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 100 mg/mL (314.61 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (7.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (7.87 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (7.87 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	Blarcamesine hydrochloride (Anavex 2-73) is a Sigma-1 Receptor agonist with an IC ₅₀ of 860 nM.
IC₅₀ & Target	Sigma 1 Receptor
In Vivo	The pre-administration of Blarcamesine leads to a dose-dependent attenuation of the scopolamine induced alternation deficit, significant at 1 and 3 mg/kg. The pre-treatment with Blarcamesine hydrochloride attenuates the impairments of

step-through latency, dose dependently and significantly at doses higher than 0.3 mg/kg^[1]. The Blarcamesine hydrochloride treatment dose-dependently blocks the recognition memory deficit, with a significant effect measured at 1 mg/kg. One day after injections, the significant A β ₂₅₋₃₅-induced decrease in Akt phosphorylation is significantly attenuated by Blarcamesine hydrochloride at 0.1 and 1 mg/kg dose. Seven days after injections, Blarcamesine hydrochloride attenuates the decrease in Ser⁹ phosphorylation induced by the peptide at 0.3 and 1 mg/kg. The Blarcamesine hydrochloride treatment dose-dependently prevents the A β ₂₅₋₃₅-induced increase in A β ₁₋₄₂ content, with a significant effect at the highest dose tested^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration ^[2]

Male mice aged 7-9 weeks and weighing 32±2 g are used. Drugs (including Blarcamesine hydrochloride) are brought up to each dose by dilution and injected in a volume of 100 μ L/20 g body weight. Animals are used between days 1 and 9 after i.c.v. injections for behavioral testing or killed before biochemical measures^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Food Chem Toxicol. 2022 Dec 29;172:113592.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Villard V, et al. Anti-amnesic and neuroprotective potentials of the mixed muscarinic receptor/sigma 1 (σ 1) ligand ANAVEX2-73, a novel aminotetrahydrofuran derivative. J Psychopharmacol. 2011 Aug;25(8):1101-17.

[2]. Valentine Lahmy, et al. Blockade of Tau Hyperphosphorylation and A β 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. 2013 Aug; 38(9): 1706-1723.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA