Data Sheet (Cat.No.T20131)

TargetMol

Cevimeline hydrochloride

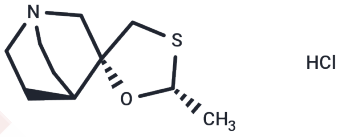
Chemical Properties

CAS No. : 107220-28-0

Formula: C10H18ClOS

Molecular Weight: 235.77

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Cevimeline hydrochloride (AF102B hydrochloride) is a quinuclidine derivative of acetylcholine that functions as a selective, orally active muscarinic M1 and M3 receptor agonist. Cevimeline hydrochloride effectively stimulating exocrine secretion from salivary glands and thereby serving as a clinically relevant sialogogue for the treatment of xerostomia, while its demonstrated ability to cross the blood-brain barrier supports its utility in central and peripheral cholinergic signaling studies and translational neuropharmacological investigations.
Targets(IC50)	AChR,Cholinesterase (ChE)
In vitro	In digested parotid gland cells, Cevimeline hydrochloride (0.1-100 μM) induced a concentration-dependent increase in intracellular Ca2+ triggering exocytosis [1].
In vivo	In male Wistar rats, intraperitoneal (i.p.) injection of Cevimeline hydrochloride (0.008-0.016 mg/kg) induces long-lasting salivation and increases parotid gland blood flow. Furthermore, Cevimeline hydrochloride inhibits water intake induced by Angiotensin II (AngII) [1][2][5].

Solubility Information

Solubility	DMSO: Soluble, H2O: 40 mg/mL (169.66 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2414 mL	21.2071 mL	42.4142 mL
5 mM	0.8483 mL	4.2414 mL	8.4828 mL
10 mM	0.4241 mL	2.1207 mL	4.2414 mL
50 mM	0.0848 mL	0.4241 mL	0.8483 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Malallah OS, et al. Buccal drug delivery technologies for patient-centred treatment of radiation-induced xerostomia (dry mouth). Int J Pharm. 2018 Apr 25;541(1-2):157-166.
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Witsell DL, et al. Effectiveness of cevimeline to improve oral health in patients with postradiation xerostomia. Head Neck. 2012 Aug;34(8):1136-42. doi: 10. 1002/hed. 21894. Epub 2012 Jan 9.
Kondo Y, et al. Cevimeline-induced monophasic salivation from the mouse submandibular gland: decreased Na+ content in saliva results from specific and early activation of Na+/H+ exchange. J Pharmacol Exp Ther. 2011 Apr; 337(1):267-74. Epub 2011 Jan 14.
Ono K, et al. Distinct effects of cevimeline and pilocarpine on salivary mechanisms, cardiovascular response and thirst sensation in rats. Arch Oral Biol. 2012 Apr;57(4):421-8. Epub 2011 Nov 17.
Voskoboynik B, et al. Cevimeline (Evoxac) overdose. J Med Toxicol. 2011 Mar;7(1):57-9.
Mitoh Y, et al. Effects of cevimeline on excitability of parasympathetic preganglionic neurons in the superior salivatory nucleus of rats. Auton Neurosci. 2017 Sep;206:1-7.