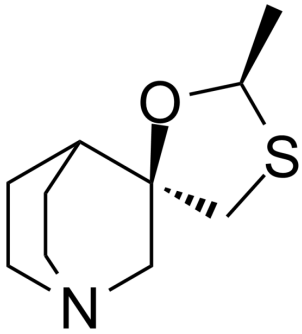
Cevimeline

Cat. No.:	HY-70020
CAS No.:	107233-08-9
Molecular Formula:	$C_{10}H_{17}NOS$
Molecular Weight:	199.31
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cevimeline (AF-102B) is a quinuclidine derivative of acetylcholine and a selective and orally active muscarinic M1 and M3 receptor agonist. Cevimeline stimulates secretion by the salivary glands and can be used as a sialogogue for xerostomia[1][2][3][4]. Cevimeline can cross the blood-brain barrier (BBB)[5].
IC_{50} & Target	Muscarinic M1 and M3 receptor[1]
In Vitro	In digested parotid cells, Cevimeline (0.1-100 μM) increases the intracellular Ca^{2+} concentration[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Cevimeline (0.008-0.016 mg/kg; intraperitoneal injection; male Wistar rats) treatment shows slowly increasing and lasting salivation, and increased blood flow increment in the parotid gland and pressor response. Cevimeline inhibits angiotensin II-induced water intake and neuronal activity in the subfornical organ at 0.016 mg/kg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Wistar rats (8-week-old) injected with angiotensin-II[1]
Dosage:	0.008 mg/kg, 0.016 mg/kg
Administration:	Intraperitoneal injection
Result:	Showed slowly increasing and lasting salivation, and increased blood flow increment in the parotid gland and pressor response.

REFERENCES

[1]. 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.

[2]. 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.

[3]. 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.

[4]. Voskoboynik B, et al.Cevimeline (Evoxac) overdose.J Med Toxicol. 2011 Mar;7(1):57-9.

[5]. 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.

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