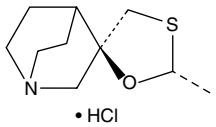
Product Information

Cevimeline (hydrochloride)

Item No. 17802

CAS Registry No.: 107220-28-0
Formal Name: (2'R,3R)-*rel*-2'-methyl-spiro[1-azabicyclo[2.2.2]octane-3,5'-[1,3]oxathiolane], monohydrochloride
Synonyms: AF 102B, SNI 2011, SNK 508
MF: $C_{10}H_{17}NOS \bullet HCl$
FW: 235.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that cevimeline (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

Cevimeline (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the cevimeline (hydrochloride) in the solvent of choice. Cevimeline (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of cevimeline (hydrochloride) ethanol and DMSO is approximately 5 mg/ml and approximately 3 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of cevimeline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cevimeline (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Cevimeline is a muscarinic receptor agonist (EC_{50}s = 23, 48, and 63 nM for M_1, M_3, and M_5, respectively, and >1 µM for M_2 and M_4).[1] It stimulates secretion by salivary glands and is useful in ameliorating xerostomia (dry mouth).[2,3]

References

1. Heinrich, J.N., Butera, J.A., Carrick, T., *et al.* Pharmacological comparison of muscarinic ligands: Historical *versus* more recent muscarinic M_1-preferring receptor agonists. *Eur. J. Pharmacol.* **605**, 53-6 (2009).
2. Kahn, S.T. and Johnstone, P.A. Management of xerostomia related to radiotherapy for head and neck cancer. *Oncology (Williston Park)* **19**, 1827-1832 (2005).
3. Ramos-Casals, M., Tzioufas, A.G., Stone, J.H., *et al.* Treatment of primary Sjögren syndrome: A systematic review. *JAMA* **304**, 452-460 (2010).

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