

Certificate of Analysis

www.tocris.com

Product Name: Cevimeline hydrochloride

Catalog No.: 3689

Batch No.: 3

CAS Number: 107220-28-0

IUPAC Name: *cis*-2-Methylspiro[1,3-oxathiolane-5,3'-quinuclidine] hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₇NOS.HCl.½H₂O

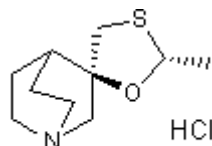
Batch Molecular Weight: 244.78

Physical Appearance: White solid

Solubility: water to 75 mM
DMSO to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



(and enantiomer)

2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	49.07	7.82	5.72
Found	49.19	7.75	5.65

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: Cevimeline hydrochloride

Catalog No.: 3689

Batch No.: 3

CAS Number: 107220-28-0

IUPAC Name: *cis*-2-Methylspiro[1,3-oxathiolane-5,3'-quinuclidine] hydrochloride

Description:

Selective M₁ receptor agonist. Induces atropine-sensitive contractions of isolated guinea pig ilea and trachea preparations (EC₅₀ values are 3.5 and 3 μM respectively). Reverses AF64A-induced cognitive impairments in vivo.

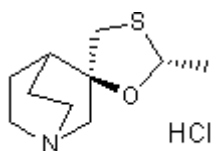
Physical and Chemical Properties:

Batch Molecular Formula: C₁₀H₁₇NOS.HCl.½H₂O

Batch Molecular Weight: 244.78

Physical Appearance: White solid

Batch Molecular Structure:



(and enantiomer)

Storage: Store at -20°C

Solubility & Usage Info:

water to 75 mM
DMSO to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Wanibuchi et al (1990) Pharmacological studies on novel muscarinic agonists, 1-oxa-8-azaspiro[4.5]decane derivatives, YM796 and YM954. *Eur.J.Pharmacol.* **187** 479. PMID: 1963596.

Fisher et al (1991) (+/-)-*cis*-2-methyl-spiro(1,3-oxathiolane-5,3')quinuclidine, an M₁ selective cholinergic agonist, attenuates cognitive dysfunctions in an animal model of Alzheimer's disease. *J.Pharmacol.Exp.Ther.* **257** 392. PMID: 2019998.

Hargreaves et al (1992) L-689,660, a novel cholinomimetic with functional selectivity for M₁ and M₃ muscarinic receptors. *Br.J.Pharmacol.* **107** 494. PMID: 1422595.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956