

Certificate of Analysis

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Product Name: Pilocarpine hydrochloride

Catalog No.: 0694

Batch No.: 2

CAS Number: 54-71-7

EC Number: 200-212-5

IUPAC Name: (3*S*-cis)-3-Ethylidihydro-4-[(1-methyl-1*H*-imidazol-5-yl)methyl]-2(3*H*)-furanone hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₁H₁₆N₂O₂.HCl

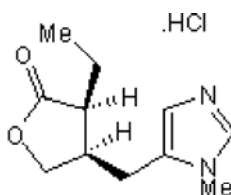
Batch Molecular Weight: 244.72

Physical Appearance: White solid

Solubility: DMSO to 75 mM
water to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = +85.9 (Concentration = 2, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.99	7	11.45
Found	53.89	7.07	11.38

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

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CAS Number: 54-71-7

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IUPAC Name: (3S-cis)-3-Ethylidihydro-4-[(1-methyl-1H-imidazol-5-yl)methyl]-2(3H)-furanone hydrochloride

Description:

Muscarinic agonist.

Physical and Chemical Properties:

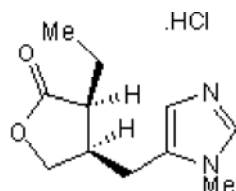
Batch Molecular Formula: C₁₁H₁₆N₂O₂.HCl

Batch Molecular Weight: 244.72

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 75 mM

water to 100 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:

Wang et al (1999) Pilocarpine modulates the cellular electrical properties of mammalian hearts by activating a cardiac M₃ receptor and a K⁺ current. *Br.J.Pharmacol.* **126** 1725. PMID: 10372814.

Brown and Taylor (1996) Muscarinic receptor agonists and antagonists. *The Pharmacological Basis of Therapeutics*. Eds Goo Chapter 7, p147.

ten Berge et al (1996) Differences in the prejunctional effects of methacholine and pilocarpine on the release of endogenous acetylcholine from guinea-pig trachea. *Naunyn Schmiedebergs Arch.Pharmacol.* **354** 606. PMID: 8938659.

Merck Index **12** 7578.

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