

## Certificate of Analysis

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**Product Name:** Rilmenidine hemifumarate

**Catalog No.:** 0790

**Batch No.:** 4

CAS Number: 207572-68-7

EC Number: 259-021-0

IUPAC Name: 2-[N-(Dicyclopropylmethyl)amino]oxazoline hemifumarate

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>10</sub>H<sub>16</sub>N<sub>2</sub>O.½C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

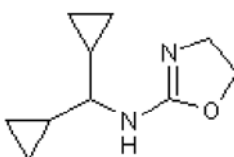
**Batch Molecular Weight:** 238.29

**Physical Appearance:** White solid

**Solubility:** DMSO to 25 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



.½C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.8 (Chloroform:Methanol:Ammonia soln. [80:18:2])

**HPLC:** Shows 99.1% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	60.49	7.61	11.76
Found	60.38	7.57	11.75

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

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**4**

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IUPAC Name: 2-[N-(Dicyclopropylmethyl)amino]oxazoline hemifumarate

**Description:**

Rilmenidine hemifumarate is an I<sub>1</sub>-imidazoline binding site selective ligand and α<sub>2</sub>-adrenoceptor agonist. Possesses greater I<sub>1</sub> vs α<sub>2</sub> selectivity than the prototypical compound, clonidine. Also thought to enhance autophagy; shown to increase LC3-II levels in PC12 cells.

**Physical and Chemical Properties:**

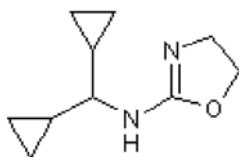
Batch Molecular Formula: C<sub>10</sub>H<sub>16</sub>N<sub>2</sub>O.½C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

Batch Molecular Weight: 238.29

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



.½C<sub>4</sub>H<sub>4</sub>O<sub>4</sub>

**References:**

**Williams et al** (2008) Novel targets for Huntington's disease in an mTOR-independent autophagy pathway. *Nat.Chem.Biol.* **4** 295. PMID: 18391949.

**Mammoto et al** (1996) Antiarrhythmic action of rilmenidine on adrenaline-induced arrhythmia via central imidazoline receptors in halothane-anaesthetized dogs. *Br.J.Pharmacol.* **117** 1744. PMID: 8732285.

**Bricca et al** (1994) Human brain imidazoline receptors: Further characterisation with [<sup>3</sup>H] clon. *Eur.J.Pharmacol.* **266** 25. PMID: 8137880.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 25 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.

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