

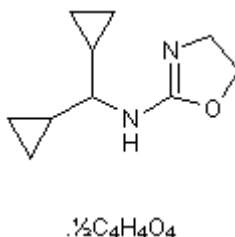
Certificate of Analysis

Product Name: Rilmenidine hemifumarate
CAS Number: 207572-68-7
IUPAC Name: 2-[N-(Dicyclopropylmethyl)amino]oxazoline hemifumarate

Catalog No.: 0790
Batch No.: 4
EC Number: 259-021-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{10}H_{16}N_2O \cdot \frac{1}{2}C_4H_4O_4$
Batch Molecular Weight: 238.29
Physical Appearance: White solid
Solubility: DMSO to 25 mM
 ethanol to 25 mM
 water to 25 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.8$ (Chloroform:Methanol:Ammonia soln. [80:18:2])
HPLC: Shows 99.1% purity
 1H 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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Description:

I₁-imidazoline binding site selective ligand and α₂-adrenoceptor agonist. Possesses greater I₁ vs α₂ selectivity than the prototypical compound, clonidine. Also thought to enhance autophagy; shown to increase LC3-II levels in PC12 cells.

Physical and Chemical Properties:

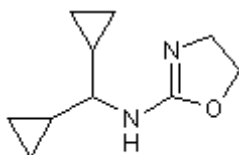
Batch Molecular Formula: C₁₀H₁₆N₂O.½C₄H₄O₄

Batch Molecular Weight: 238.29

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



½C₄H₄O₄

Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 25 mM
ethanol to 25 mM
water 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.

References:

Bricca et al (1989) Rilmenidine selectivity for imidazoline receptors in human brain. *Eur.J.Pharmacol.* **163** 373. PMID: 2566507.

Michel and Ernsberger (1992) Keeping an eye on the I site: imidazoline-preferring receptors. *TIPS* **13** 369. PMID: 1413085.

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

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.

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

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