

## Certificate of Analysis

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**Product Name:** Atipamezole hydrochloride

**Catalog No.:** 2937

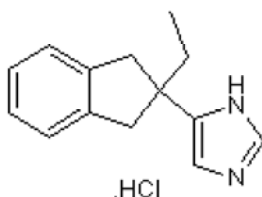
**Batch No.:** 1

CAS Number: 104075-48-1

IUPAC Name: 5-(2-Ethyl-2,3-dihydro-1H-indene-2-yl)-1H-imidazole hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>.HCl  
**Batch Molecular Weight:** 248.75  
**Physical Appearance:** Off-white solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.3% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	67.6	6.89	11.26
Found	67.28	6.84	11.28

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**Description:**

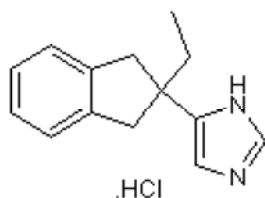
Atipamezole hydrochloride is a selective  $\alpha_2$ -adrenergic receptor antagonist ( $K_i$  values are 1.1, 1.0, 0.89, 1300 and 6500 nM for  $\alpha_{2A}$ ,  $\alpha_{2B}$ ,  $\alpha_{2C}$ ,  $\alpha_{1A}$  and  $\alpha_{1B}$  receptors respectively). Brain penetrant.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>14</sub>H<sub>16</sub>N<sub>2</sub>.HCl  
 Batch Molecular Weight: 248.75  
 Physical Appearance: Off-white solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM  
 DMSO 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:**

**Jurgens et al** (2007)  $\alpha_{2A}$  adrenergic receptor activation inhibits epileptiform activity in the rat hippocampal CA3 region. *Mol.Pharmacol.* **71** 1572. PMID: 17341653.

**Puurunen et al** (2001) An  $\alpha_2$ -adrenergic antagonist, atipamezole, facilitates behavioral recovery after focal cerebral ischemia in rats. *Neuropharmacology* **40** 597. PMID: 11249969.

**Virtanen et al** (1989) Highly selective and specific antagonism of central and peripheral alpha 2-adrenoceptors by atipamezole. *Arch.Int.Pharmacodyn.Ther.* **297** 190. PMID: 2567152.

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