

## Certificate of Analysis

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**Product Name:** Clonidine hydrochloride

**Catalog No.:** 0690

**Batch No.:** 5

CAS Number: 4205-91-8

EC Number: 224-121-5

IUPAC Name: 2-[(2,6-Dichlorophenyl)amino]-2-imidazoline hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>9</sub>H<sub>9</sub>Cl<sub>2</sub>N<sub>3</sub>.HCl

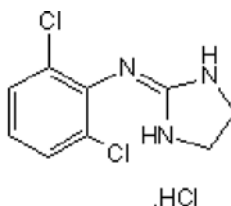
**Batch Molecular Weight:** 266.56

**Physical Appearance:** White solid

**Solubility:** water to 100 mM  
DMSO to 50 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 100% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	40.55	3.78	15.76
Found	40.36	3.76	15.61

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

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IUPAC Name: 2-[(2,6-Dichlorophenyl)amino-2-imidazoline hydrochloride

**Description:**

Prototypical I<sub>1</sub> imidazoline receptor ligand. α<sub>2</sub>-adrenergic receptor agonist. Antihypertensive. Also thought to enhance autophagy; shown to increase LC3-II levels in PC12 cells.

**Physical and Chemical Properties:**

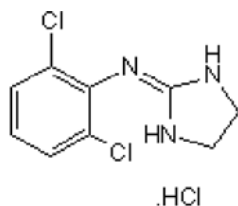
Batch Molecular Formula: C<sub>9</sub>H<sub>9</sub>Cl<sub>2</sub>N<sub>3</sub>.HCl

Batch Molecular Weight: 266.56

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 100 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:**

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

**Armitsu et al** (1998) Mechanism of relaxant effect of clon. in isolated bovine tracheal smooth muscle. *J.Pharmacol.Exp.Ther.* **286** 681. PMID: 9694921.

**Silva et al** (1996) Dual effect of clon. on mesenteric artery adrenoreceptors: agonistic (*alpha*-2) and antagonistic (*alpha*-1). *J.Pharmacol.Exp.ther.* **277** 872. PMID: 8627569.

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