

Certificate of Analysis

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Product Name: Clonidine hydrochloride

Catalog No.: 0690

Batch No.: 3

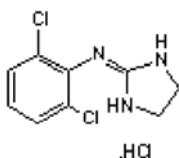
CAS Number: 4205-91-8

EC Number: 224-121-5

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₉Cl₂N₃.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

TLC: R_f = 0.47 (Pyridine:Acetic acid:Water:Butanol [3:8:11:33])
Melting Point: At 316°C
HPLC: Shows >99.6% purity
¹H NMR: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	40.55	3.78	15.76
Found	40.56	3.72	15.95

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

bio-techne.com

info@bio-techne.com
techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors
Tel: +1 612 379 2956

Product Information

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EC Number: 224-121-5

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

Description:

Prototypical I₁ imidazoline receptor ligand. α₂-adrenergic receptor agonist. Antihypertensive. Also thought to enhance autophagy; shown to increase LC3-II levels in PC12 cells.

Physical and Chemical Properties:

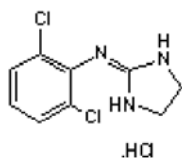
Batch Molecular Formula: C₉H₉Cl₂N₃.HCl

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 (α₂) and antagonistic (α₁). *J.Pharmacol.Exp.ther.* **277** 872. PMID: 8627569.

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