

Certificate of Analysis

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Product Name: Guanfacine hydrochloride

Catalog No.: 1030

Batch No.: 7

CAS Number: 29110-48-3

EC Number: 249-443-3

IUPAC Name: [(2,6-Dichlorophenyl)acetyl]guanidine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₉Cl₂N₃O.HCl

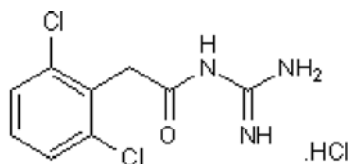
Batch Molecular Weight: 282.56

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	38.26	3.57	14.87
Found	38.35	3.56	14.75

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

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IUPAC Name: [(2,6-Dichlorophenyl)acetyl]guanidine hydrochloride

Description:

Guanfacine hydrochloride is a selective α_{2A} -adrenoceptor agonist ($K_d = 31$ nM). Displays 60-fold selectivity over α_{2B} -adrenoceptors.

Physical and Chemical Properties:

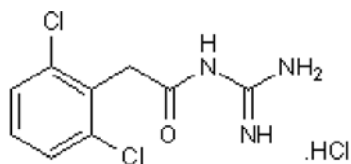
Batch Molecular Formula: $C_9H_9Cl_2N_3O.HCl$

Batch Molecular Weight: 282.56

Physical Appearance: White solid

Minimum Purity: $\geq 99\%$

Batch Molecular Structure:



Storage: Store 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:

Intengan and Smyth (1997) *Alpha-2a/d* adrenoceptor subtype stimulation by guanf. increases osmolar clearance. *J.Pharmacol.Exp.Ther.* **281** 48. PMID: 9103479.

Uhlen and Wikberg (1991) Delineation of rat kidney α_{2A} - and α_{2B} -adrenoceptors with [³H]RX821002 radioligand binding: computer modelling reveals that guanf. is an α_{2A} -selective compound. *Eur.J.Pharmacol.* **202** 235. PMID: 1666366.

Merck Index **12** 4590.

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