

Certificate of Analysis

www.tocris.com

Product Name: *m*-Chlorophenylbiguanide hydrochloride

Catalog No.: 0440

Batch No.: 3

CAS Number: 2113-05-5

IUPAC Name: 1-(3-Chlorophenyl)biguanide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₀ClN₅·HCl

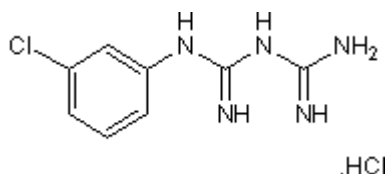
Batch Molecular Weight: 248.11

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.43 (Chloroform:Methanol:Ammonia soln. [5:3:0.1])

Melting Point: At 204°C

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical	38.73	4.47	28.23	0 0 0
Found	38.91	4.5	28.22	0 0 0

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

Product Information

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Catalog No.: 0440

Batch No.: 3

CAS Number: 2113-05-5

IUPAC Name: 1-(3-Chlorophenyl)biguanide hydrochloride

Description:

Prototypical potent and selective 5-HT₃ receptor agonist.

Physical and Chemical Properties:

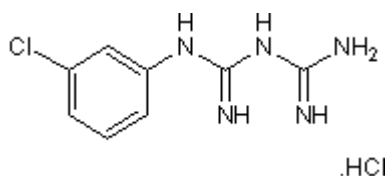
Batch Molecular Formula: C₈H₁₀ClN₅.HCl

Batch Molecular Weight: 248.11

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water 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:

Kilpatrick et al (1990) 1-(*m*-Chlorophenyl)biguanide, a potent high affinity 5-HT₃ receptor agonist. *Eur.J.Pharmacol.* **182** 193. PMID: 2144822.

Sepulveda et al (1991) The agonist properties of *m*-chlorophenylbiguanide and 2-methyl-5-hydroxytryptamine on 5-HT₃ receptors in N1E-115 neuroblastoma cells. *Br.J.Pharmacol.* **104** 536. PMID: 1797317.

Boess et al (1992) 5HT₃ receptors in NG108-15 neuroblastoma X glioma cells: effect of the novel agonist 1-(*m*-chlorophenyl)biguanide. *Neuropharmacology* **31** 561. PMID: 1407396.

Niemeyer and Lummis (1998) Different efficacy of specific agonists at 5-HT₃ receptor splice variants: the role of the extra six amino acid segment. *Br.J.Pharmacol.* **123** 661. PMID: 9517385.

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