

## Certificate of Analysis

**Product Name:** NBI 27914 hydrochloride

**Catalog No.:** 1591

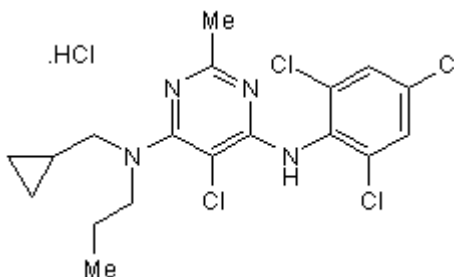
**Batch No.:** 2

CAS Number: 1215766-76-9

IUPAC Name: 5-Chloro-N-(cyclopropylmethyl)-2-methyl-N-propyl-N-(2,4,6-trichlorophenyl)-4,6-pyrimidinediamine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>20</sub>Cl<sub>4</sub>N<sub>4</sub>.HCl  
**Batch Molecular Weight:** 470.66  
**Physical Appearance:** White solid  
**Solubility:** ethanol to 100 mM  
DMSO to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.42 (Ethyl acetate:Petroleum ether [9:1])  
**HPLC:** Shows >99% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	45.94	4.5	11.9
Found	45.89	4.62	11.61

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

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**Description:**

Selective, non-peptide corticotropin-releasing factor<sub>1</sub> (CRF<sub>1</sub>) receptor antagonist (K<sub>i</sub> = 1.7 nM); has no activity at CRF<sub>2</sub> receptors. Blocks behavioral seizures in vivo.

**Physical and Chemical Properties:**

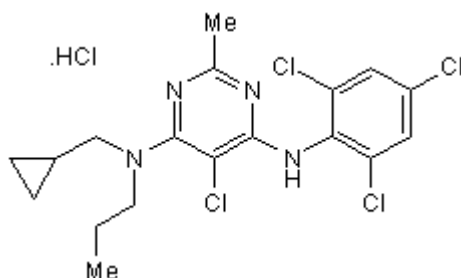
Batch Molecular Formula: C<sub>18</sub>H<sub>20</sub>Cl<sub>4</sub>N<sub>4</sub>.HCl

Batch Molecular Weight: 470.66

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

ethanol 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:**

**Chen et al** (1996) Design and synthesis of a series of non-peptide high-affinity human corticotropin-releasing factor<sub>1</sub> receptor antagonists. *J.Med.Chem.* **39** 4358. PMID: 8893829.

**Baram et al** (1997) The CRF<sub>1</sub> receptor mediates the excitatory actions of corticotropin releasing factor (CRF) in the developing rat brain: in vivo evidence using a novel, selective, non-peptide CRF receptor antagonist. *Brain Res.* **770** 89. PMID: 9372207.

**McCarthy et al** (1999) Recent advances with the CRF<sub>1</sub> receptor: design of small molecule inhibitors, receptor subtypes and clinical indications. *Curr.Pharm.Des.* **5** 289. PMID: 10213797.

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