

## Certificate of Analysis

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**Product Name:** Piclamilast

**Catalog No.:** 4525

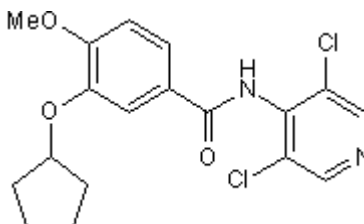
**Batch No.:** 1

CAS Number: 144035-83-6

IUPAC Name: 3-(Cyclopentyloxy)-*N*-(3,5-dichloro-4-pyridinyl)-4-methoxybenzamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>18</sub>H<sub>18</sub>Cl<sub>2</sub>N<sub>2</sub>O<sub>3</sub>  
**Batch Molecular Weight:** 381.25  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
ethanol to 20 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 | 56.7                     | 4.76 | 7.35 |
| Found       | 56.7                     | 4.9  | 7.33 |

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

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**Description:**

Potent and selective inhibitor of phosphodiesterase (PDE) 4 ( $IC_{50}$  = 1 nM at PDE4 from human neutrophils). Displays >19,000-fold selectivity over other PDE isoenzymes. Exhibits anti-inflammatory effects in models of allergic inflammation. Also inhibits  $LTB_4$  synthesis in human neutrophils ( $IC_{50}$  = 2 nM).

**Physical and Chemical Properties:**

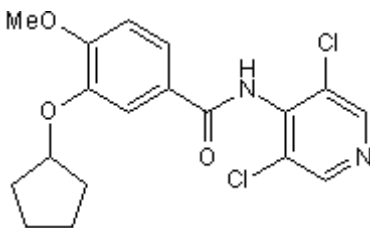
Batch Molecular Formula:  $C_{18}H_{18}Cl_2N_2O_3$

Batch Molecular Weight: 381.25

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Raeburn *et al*** (1994) Anti-inflammatory and bronchodilator properties of RP 73401, a novel and selective phosphodiesterase type IV inhibitor. *Br.J.Pharmacol.* **113** 1423. PMID: 7889300.

**Hatzelmann and Schudt** (2001) Anti-inflammatory and immunomodulatory potential of the novel PDE4 inhibitor roflumilast in vitro. *J.Pharmacol.Exp.Ther.* **297** 267. PMID: 11259554.

**Zhao *et al*** (2003) Inhibitor binding to type 4 phosphodiesterase (PDE4) assessed using [ $^3H$ ]piclamilast and [ $^3H$ ]rolipram. *J.Pharmacol.Exp.Ther.* **305** 565. PMID: 12704225.

**Storage:** Store at RT

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 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.

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