

Product Name: Piclamilast

Catalog No.: 4525

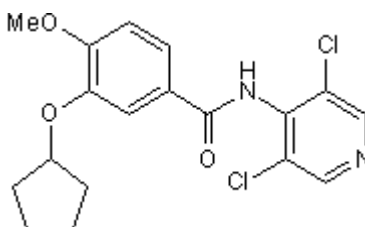
Batch No.: 1

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: C₁₈H₁₈Cl₂N₂O₃
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
¹H 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 LTB₄ synthesis in human neutrophils (IC_{50} = 2 nM).

Physical and Chemical Properties:

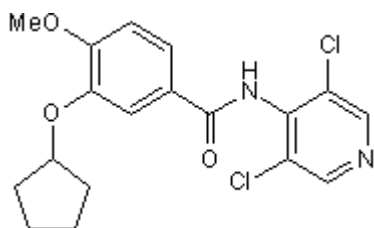
Batch Molecular Formula: C₁₈H₁₈Cl₂N₂O₃

Batch Molecular Weight: 381.25

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



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.

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.

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