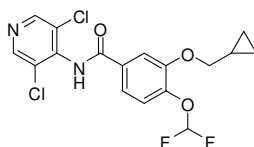




## Certificate of Analysis

**Axon Catalogue ID:** 2352 **Batch Number:** 1  
**Product Name:** Roflumilast  
**Alternative Name(s):** N.A.  
**IUPAC Name:** 3-(Cyclopropylmethoxy)-N-(3,5-dichloropyridin-4-yl)-4-(difluoromethoxy)benzamide

**Structure:**



**Amount:**

**CAS number:** 162401-32-3  
**Batch Molecular Formula:** C<sub>17</sub>H<sub>14</sub>Cl<sub>2</sub>F<sub>2</sub>N<sub>2</sub>O<sub>3</sub> **Batch MW:** 403.21  
**Appearance:** White solid **Observed mp:** 159.5 - 160.2 °C  
**TLC (R<sub>f</sub>):** 0.7 DCM/MeOH  
**Chemical Purity:** 100%  
**Optical Purity (ee):**  
**<sup>1</sup>H-NMR (300 MHz):** Analytical data confirm chemical structure  
**Mass Spec:** Analytical data confirm chemical structure  
**Microanalysis:** Calculated: C 50.64 , H 3.50 , N 6.95 Found: C 50.50 , H 3.07 , N 6.72  
**Storage Conditions:** Store at +4 °C

<b>Solubility Data:</b>	<b>Solvent</b>	<b>Solubility (mg/ml)</b>	<b>Solubility (mM)</b>	<b>Remarks</b>
	Water			Not Tested
	0.1N NaOH (aq)			Not Tested
	0.1N HCl (aq)			Not Tested
	DMSO	40.3	>100 mM	
	EtOH			Not Tested

**Remarks:**

**QC Date:** 02-10-2014

The purity of Axon Ligands is confirmed by HPLC, MS, NMR and/or microanalysis. Analytical data are available upon request. Request can be submitted by e-mail to [info@axonmedchem.com](mailto:info@axonmedchem.com) indicating Catalogue ID and Batch number.

**Caution: Not fully tested. For research purposes only**