

## Certificate of Analysis

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**Product Name:** Ro 1138452 hydrochloride

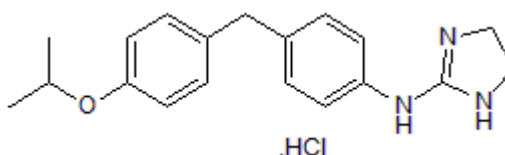
**Catalog No.:** 4268

**Batch No.:** 1

**IUPAC Name:** 4,5-Dihydro-N-[4-[[4-(1-methylethoxy)phenyl]methyl]phenyl]-1H-imidazol-2-amine hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>19</sub>H<sub>23</sub>N<sub>3</sub>O.HCl  
**Batch Molecular Weight:** 345.87  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
**Storage:** Desiccate at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.3 (40% Dichloromethane:Methanol + 2% NH<sub>4</sub>OH)  
**HPLC:** Shows 99% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	65.98	6.99	12.15
Found	65.87	6.93	12.16

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

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**Description:**

Selective prostacyclin IP receptor antagonist ( $pK_i = 8.3$ ). Exhibits no affinity at other prostanoid receptors ( $EP_{1-4}$ , FP and TP) in a radioligand binding assay. Demonstrates analgesic activity in rats. Orally bioavailable.

**Physical and Chemical Properties:**

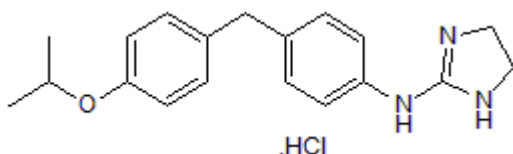
Batch Molecular Formula:  $C_{19}H_{23}N_3O.HCl$

Batch Molecular Weight: 345.87

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 100 mM

DMSO to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival.

**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:**

**Clark et al** (2004) Discovery and SAR development of 2-(phenylamino) imidazolines as prostacyclin receptor antagonists. *Bioorg.Med.Chem.Lett.* **14** 1053. PMID: 15013022.

**Jones et al** (2006) Investigation of the prostacyclin (IP) receptor antagonist RO1138452 on isolated blood vessel and platelet preparations. *Br.J.Pharmacol.* **149** 110. PMID: 16880763.

**Bley et al** (2006) RO1138452 and RO3244794: characterization of structurally distinct, potent and selective IP (prostacyclin) receptor antagonists. *Br.J.Pharmacol.* **147** 335. PMID: 16331286.

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