

## Certificate of Analysis

**Product Name:** R-96544 hydrochloride

**Catalog No.:** 1742

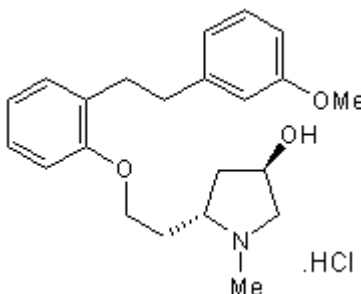
**Batch No.:** 3

**CAS Number:** 167144-80-1

**IUPAC Name:** (2*R*,4*R*)-5-[2-[2-[2-(3-Methoxyphenyl)ethyl]phenoxy]ethyl]-1-methyl-3-pyrrolidinol hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>22</sub>H<sub>29</sub>NO<sub>3</sub>.HCl  
**Batch Molecular Weight:** 391.94  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
DMSO to 100 mM  
**Storage:** Store at RT  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.02 (Chloroform:Methanol [9:1])  
**HPLC:** Shows >99.5% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure  
**Optical Rotation:** [α]<sub>D</sub> = -14.7 (Concentration = 1.5, Solvent = Methanol)  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	67.42	7.71	3.57
Found	67.37	7.75	3.6

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

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**Description:**

Potent, selective 5-HT<sub>2A</sub> receptor antagonist; displays some selectivity for 5-HT<sub>2A</sub> receptors (K<sub>i</sub> = 1.6 nM). IC<sub>50</sub> values are 2.2, 310, 2400, 3700, > 5000 and > 5000 nM for 5-HT<sub>2A</sub>, α<sub>1</sub>-adrenergic, D<sub>2</sub> dopamine, 5-HT<sub>1</sub>, 5-HT<sub>3</sub> and β-adrenergic receptors respectively. Inhibits 5-HT-induced platelet aggregation and pressor responses in vivo.

**Physical and Chemical Properties:**

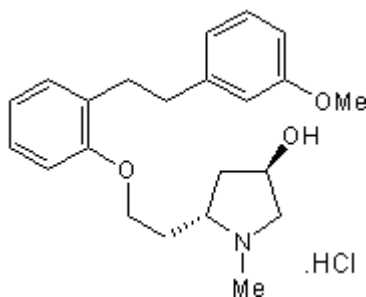
Batch Molecular Formula: C<sub>22</sub>H<sub>29</sub>NO<sub>3</sub>.HCl

Batch Molecular Weight: 391.94

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**References:**

**Tanaka et al** (2000) [2-(ω-Phenylalkyl)phenoxy]alkylamines III: Synthesis and selective serotonin-2 receptor binding. *Chem.Pharm.Bull.* **48** 1729. PMID: 11086903.

**Ogawa et al** (2002) Pharmacological profiles of R-96544, the active form of a novel 5-HT<sub>2A</sub> receptor antagonist R-102444. *Eur.J.Pharmacol.* **457** 107. PMID: 12464356.

**Ogawa et al** (2005) Effects of R-102444 and its active metabolite R-96544, selective 5-HT<sub>2A</sub> receptor antagonists, on experimental acute and chronic pancreatitis: additional evidence for possible involvement of 5-HT<sub>2A</sub> receptors in the development of experimental pancreatitis. *Eur.J.Pharmacol.* **521** 156. PMID: 16183055.

**Storage:** Store at RT

**Solubility & Usage Info:**

water 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.

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