

## Certificate of Analysis

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**Product Name:** R 1485 dihydrochloride

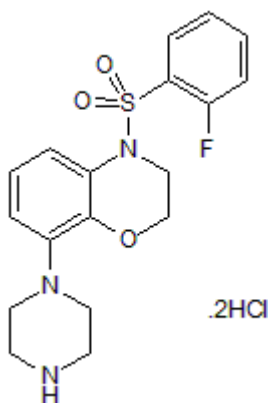
**Catalog No.:** 4964

**Batch No.:** 1

**IUPAC Name:** 4-[(2-Fluorophenyl)sulfonyl]-3,4-dihydro-8-(1-piperazinyl)-2H-1,4-benzoxazine dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>18</sub> H <sub>20</sub> FN <sub>3</sub> O <sub>3</sub> S.2HCl.¼H <sub>2</sub> O
<b>Batch Molecular Weight:</b>	454.85
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	water to 100 mM DMSO to 100 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



### 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows >99.7% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	47.53	4.99	9.24
Found	47.49	5.04	9.17

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

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**Description:**

Selective and high affinity 5-HT<sub>6</sub> antagonist (pK<sub>i</sub> = 8.9); displays low hERG inhibition. Exhibits >100 fold selectivity against a panel of 50 targets including other 5-HT receptor subtypes. Brain penetrant.

**Physical and Chemical Properties:**

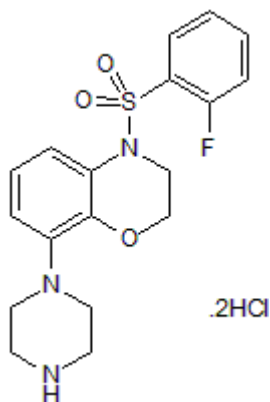
Batch Molecular Formula: C<sub>18</sub>H<sub>20</sub>FN<sub>3</sub>O<sub>3</sub>S.2HCl.¼H<sub>2</sub>O

Batch Molecular Weight: 454.85

Physical Appearance: White solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**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.

**References:**

**Zhao et al (2007)** 3,4-Dihydro-2H-benzo[1,4]oxazine derivatives as 5-HT<sub>6</sub> receptor antagonists. *Bioorg.Med.Chem.Lett.* **17** 3504. PMID: 17485206.

**Liu et al (2009)** 5-HT<sub>6</sub> antagonists as potential treatment for cognitive dysfunction. *Drug Des.Rev.* **70** 145.

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