

Certificate of Analysis

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Product Name: Fluoxetine hydrochloride

Catalog No.: 0927

Batch No.: 5

CAS Number: 56296-78-7

EC Number: 260-101-2

IUPAC Name: *N*-Methyl-3-[4-(trifluoromethyl)phenoxy]-3-phenylpropylamine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₈F₃NO.HCl

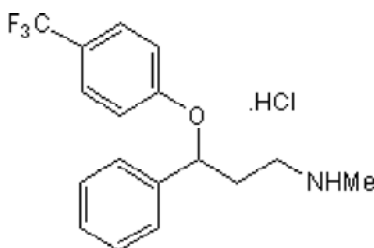
Batch Molecular Weight: 345.78

Physical Appearance: White solid

Solubility: DMSO to 100 mM
water to 10 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 158 - 159°C

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.05	5.54	4.05
Found	59.26	5.57	3.9

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

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IUPAC Name: *N*-Methyl-3-[(4-trifluoromethyl)phenoxy]-3-phenylpropylamine hydrochloride

Description:

Selective serotonin reuptake inhibitor. Binds to the human 5-HT transporter with a K_i of 0.9 nmol/l and is between 150- and 900-fold selective over 5-HT_{1A}, 5-HT_{2A}, H₁, α_1 , α_2 -adrenergic, and muscarinic receptors. Antidepressant. Induces differentiation of neuronal precursors, enhancing neuronal characteristics.

Physical and Chemical Properties:

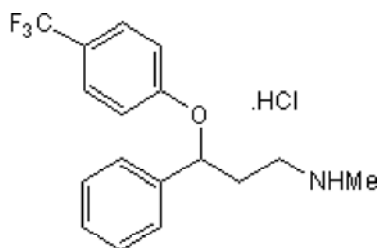
Batch Molecular Formula: C₁₇H₁₈F₃NO.HCl

Batch Molecular Weight: 345.78

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



References:

Chang *et al* (2010) Increased cellular turnover in response to fluox. in neuronal precursors derived from human embryonic stem cells. *Int.J.Dev.Biol.* **54** 707. PMID: 19598107.

Beck *et al* (1997) Fluoxetine selectively alters 5-hydroxytryptamine_{1A} and γ -aminobutyric acid_B receptor-mediated hyperpolarization in area CA1, but not area CA3, hippocampal pyramidal cells. *J.Pharmacol.Exp.Ther.* **281** 115. PMID: 9103487.

Owens *et al* (1997) Neurotransmitter receptor and transporter binding profile of antidepressants and their metabolites. *J.Pharmacol.Exp.Ther.* **283** 1305. PMID: 9400006.

Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
water to 10 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.

Licensing Information:

Sold with the permission of Eli Lilly and Company

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