

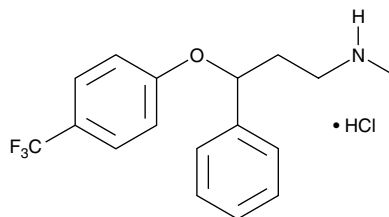
Product Information



Fluoxetine (hydrochloride)

Item No. 14418

CAS Registry No.: 56296-78-7
Formal Name: N-methyl-γ-[4-(trifluoromethyl)phenoxy]-benzenepropanamine, monohydrochloride
Synonyms: Fontex®, LY110140, Prozac®, Sarafem®
MF: C₁₇H₁₈F₃NO • HCl
FW: 345.8
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 226, 268, 276 nm



Laboratory Procedures

For long term storage, we suggest that fluoxetine (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

Fluoxetine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the fluoxetine (hydrochloride) in the solvent of choice. Fluoxetine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of fluoxetine (hydrochloride) in ethanol and DMSO is approximately 12.5 mg/ml and approximately 16 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of fluoxetine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of fluoxetine (hydrochloride) in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Fluoxetine is a selective serotonin reuptake inhibitor, displaying a marked preference for the serotonin transporter (K_d = 0.81 nM) over the norepinephrine transporter (K_d = 240 nM) and the dopamine transporter (K_d = 3,600 nM).¹ It is effective in the clinical treatment of major depression as well as other psychiatric disorders.^{2,3}

References

1. Tatsumi, M., Groshan, K., Blakely, R.D., *et al.* Pharmacological profile of antidepressants and related compounds at human monoamine transporters. *Eur. J. Pharmacol.* **340(2-3)**, 249-258 (1997).
2. Farley, R.L. Pharmacological treatment of major depressive disorder in adolescents. *The Scientific World JOURNAL* **5**, 420-426 (2005).
3. Pacher, P. and Kecskemeti, V. Trends in the development of new antidepressants. Is there a light at the end of the tunnel? *Curr. Med. Chem.* **11(7)**, 925-943 (2004).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/14418

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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