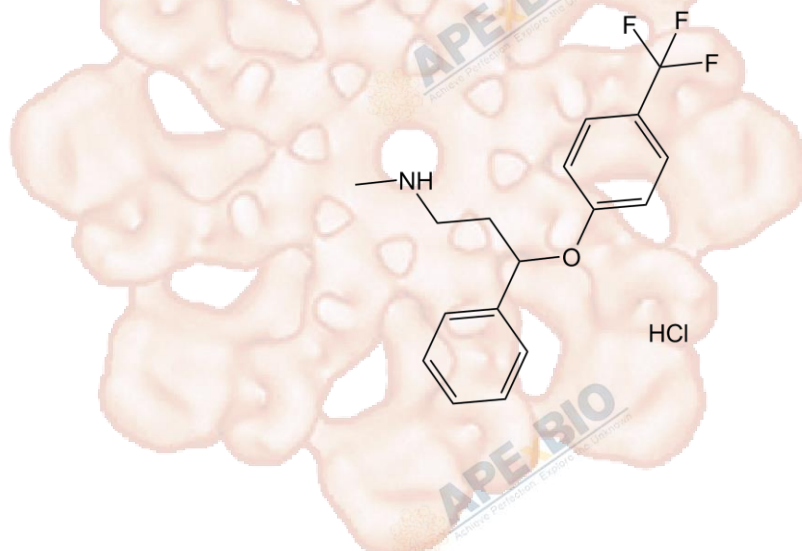


Product Data Sheet

Fluoxetine HCl

Cat. No.:	A2436
CAS No.:	56296-78-7
Formula:	C ₁₇ H ₁₈ F ₃ NO·HCl
M.Wt:	345.79
Synonyms:	
Target:	Neuroscience
Pathway:	5-HT Receptor
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥17.3 mg/mL in DMSO; ≥32.2 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	2.8919 mL	14.4596 mL	28.9193 mL
	5 mM	0.5784 mL	2.8919 mL	5.7839 mL
	10 mM	0.2892 mL	1.4460 mL	2.8919 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Serotonin reuptake inhibitor,selective

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Xenopus oocytes expressing 5HT _{2C} receptor or 5HT receptors
Preparation method:	The solubility of this compound in DMSO is >17.3 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	100 μM

	Applications:	Fluoxetine inhibited the membrane currents elicited by serotonin (5HT) in <i>Xenopus</i> oocytes expressing either cloned 5HT _{2c} receptors or 5HT receptors. Responses of 5HT _{2c} receptors, elicited by nM concentrations of 5HT, were rapidly and reversibly blocked by micromolar concentrations of fluoxetine. In accord with the electrophysiological results, fluoxetine inhibited the binding of [³ H]5HT to 5HT _{2c} receptors, and the binding to 5HT receptors in rat cortex membranes was also inhibited but less efficiently.
In Vivo	Animal experiment	
	Animal models:	Male Sprague-Dawley rats
	Dosage form:	5 mg/kg/day, i.p.
	Applications:	Olanzapine or fluoxetine treatment also increased the number of proliferating cells in the prelimbic cortex. In contrast, there was no effect of either drug in the subventricular zone or primary motor cortex. Subchronic (7 days) administration of olanzapine had no effect on cell proliferation in hippocampus or prelimbic cortex, consistent with the time course for the effect of fluoxetine and the therapeutic actions of antidepressant treatment. The combination of olanzapine plus fluoxetine did not result in a greater induction of cell proliferation in either brain region.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.	

Product Citations

See more customer validations on www.apexbt.com.

References

- [1] Ni Y G, Miledi R. Blockage of 5HT_{2C} serotonin receptors by fluoxetine (Prozac)[J]. Proceedings of the National Academy of Sciences, 1997, 94(5): 2036-2040.
- [2] Kodama M, Fujioka T, Duman R S. Chronic olanzapine or fluoxetine administration increases cell proliferation in hippocampus and prefrontal cortex of adult rat[J]. Biological psychiatry, 2004, 56(8): 570-580.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.



Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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