

Product Datasheet

Fluoxetine hydrochloride (orb1224654)

Catalog Number	orb1224654
Category	Small Molecules
Description	Fluoxetine HCl is an antidepressant of the selective serotonin reuptake inhibitor (SSRI) class.(In Vitro):Fluoxetine hydrochloride (LY 110140) blocks the downregulation of cell proliferation resulting from inescapable shock (IS) of hippocampal cell. Fluoxetine increases the number of newborn cells in the dentate gyrus of the hippocampus of adult rat. Fluoxetine also increases the number of proliferating cells in the prelimbic cortex. Fluoxetine accelerates the maturation of immature neurons. Fluoxetine enhances neurogenesis-dependent long-term potentiation (LTP) in the dentate gyrus. Fluoxetine, but not citalopram, fluvoxamine, paroxetine and sertraline, increases norepinephrine and dopamine extracellular levels in prefrontal cortex. Fluoxetine produces robust and sustained increases in extracellular concentrations of norepinephrine and dopamine after acute systemic administration.\n(In Vivo):Fluoxetine hydrochloride (LY 110140) treatment also reverses the deficit in escape latency observed in animals exposed to inescapable shock in adult male Sprague-Dawley rats. Fluoxetine (5 mg/kg) alone increases cell proliferation in the dentate gyrus. Coadministration (fluoxetine 5 mg/kg + olanzapine) also significantly increases the number of BrdU-positive cells compared with the control group. Fluoxetine combined with Olanzapine produces robust, sustained increases of extracellular levels of dopamine ([DA](ex)) and norepinephrine ([NE](ex)) up to 361% and 272% of the baseline, respectively, which are significantly greater than either drug alone.
Target	5-HT Receptor
Purity	>98% (HPLC)
MW	345.79
Target Areas	5-HT Sert (Sodium-dependent)

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Solubility (25°C)	Ethanol: 69 mg/mL (199.54 mM); Water: 4 mg/mL (11.56 mM); DMSO: 69 mg/mL (199.54 mM)
CAS Number	56296-78-7
Formula	$C_{17}H_{18}F_3NO \cdot HCl$
SMILES	<chem>Cl.CNCCC(OC1=CC=C(C=C1)C(F)(F)F)C1=CC=CC=C1</chem>
Storage	Storage temperature: -20°C. Stability: ≥ 2 years
Note	For research use only
Expiration Date	12 months from date of receipt.

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