Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Fluoxetine (hydrochloride)

Catalog No: tcsc1838

Available Sizes

Size: 50mg

Size: 100mg

Size: 500mg

Specifications

CAS No:
56296-78-7

Formula:
$C_{17}H_{19}ClF_3NO$

Pathway:
Neuronal Signaling;Autophagy

Target:
Serotonin Transporter;Autophagy

Purity / Grade:
>98%

Solubility:
H2O : 10 mg/mL (28.92 mM; Need ultrasonic); DMSO : ≥ 25 mg/mL (72.30 mM)

Alternative Names:
LY-110140

Observed Molecular Weight:
345.79

Product Description

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Fluoxetine (hydrochloride) is a selective **serotonin reuptake inhibitor (SSRI)** class used for antidepressant research.

In Vitro: Fluoxetine blocks the downregulation of cell proliferation resulting from inescapable shock (IS) of hippocampal cell[1]. 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[2]. Fluoxetine accelerates the maturation of immature neurons. Fluoxetine enhances neurogenesis-dependent long-term potentiation (LTP) in the dentate gyrus[3]. 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[4].

In Vivo: Fluoxetine treatment also reverses the deficit in escape latency observed in animals exposed to inescapable shock in adult male Sprague-Dawley rats[1]. 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[2]. 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[5].