



LKT Laboratories, Inc.

# Paroxetine Hydrochloride Hemihydrate

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## Product Information

**Product ID** P0297

**CAS No.** 110429-35-1

**Chemical Name** (3S-trans)-3-[(1,3-Benzodioxol-5-yloxy)methyl]-4-(4-fluorophenyl) piperidine hydrochloride hemihydrate

**Synonym** Paroxetine hydrochloride hemihydrate, Paxil: Aropax, Deroxat, Seroxat

**Formula** C<sub>19</sub>H<sub>20</sub>FNO<sub>3</sub> HCl 1/2H<sub>2</sub>O

**Formula Wt.** 374.84

**Melting Point** 129-131 °C

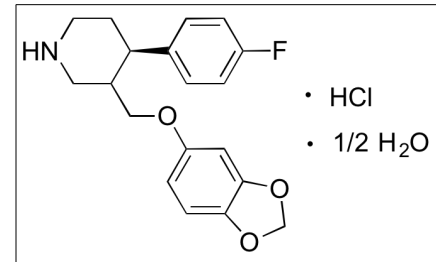
**Purity** ≥98%

**Solubility** Soluble in water (5.4 mg/mL), DMSO(73 mg/mL), and ethanol (35mg/mL)

**Store Temp** Ambient

**Ship Temp** Ambient

**Description** Paroxetine is a SSRI that primarily inhibits activity of the 5-HT transporter (SERT) but also displays some affinity for the norepinephrine transporter (NET) and for muscarinic acetylcholine receptors (mAChRs). Paroxetine exhibits antidepressant, antibiotic, anti-inflammatory, and neuroprotective activities. This compound displays antibacterial efficacy against gram positive bacteria and antifungal efficacy against *Aspergillus* and *Candida*. In vitro, paroxetine inhibits LPS-induced production of iNOS, TNF- $\alpha$ , and IL-1 $\beta$  and suppresses activation of JNK1/2 and microglia. Additionally, paroxetine decreases amyloid-B (A $\beta$ ) oligomer levels when administered clinically to subjects with Alzheimer's disease. This compound also acts as a functional inhibitor of acid sphingomyelinase (FIASMA).



**Bulk quantities available upon request**

Product ID	Size
P0297	25 mg
P0297	100 mg
P0297	500 mg
P0297	1 g

**References** Liu RP, Zou M, Wang JY, et al. Paroxetine ameliorates lipopolysaccharide-induced microglia activation via differential regulation of MAPK signaling. *J Neuroinflammation*. 2014 Mar 12;11:47. PMID: 24618100.

Aboukhatwa M, Luo Y. Antidepressants modulate intracellular amyloid peptide species in N2a neuroblastoma cells. *J Alzheimers Dis*. 2011;24(2):221-34. PMID: 21263193.

Young TJ, Oliver GP, Pryde D, et al. Antifungal activity of selective serotonin reuptake inhibitors attributed to non-specific cytotoxicity. *J Antimicrob Chemother*. 2003 Apr;51(4):1045-7. PMID: 12654745.

Munoz-Bellido JL, Munoz-Criado S, Garcia-Rodriguez JA. Antimicrobial activity of psychotropic drugs: selective serotonin reuptake inhibitors. *Int J Antimicrob Agents*. 2000 Apr;14(3):177-80. PMID: 10773485.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.