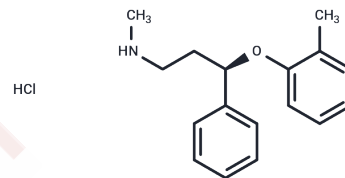


Atomoxetine hydrochloride

Chemical Properties

CAS No. :	82248-59-7
Formula:	C ₁₇ H ₂₂ ClNO
Molecular Weight:	291.82
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Atomoxetine hydrochloride (LY 139603) is the hydrochloride salt of atomoxetine, a phenoxy-3-propylamine derivative and selective non-stimulant, norepinephrine reuptake inhibitor with cognitive-enhancing activity. Although its precise mechanism of action is unknown, atomoxetine appears to selectively inhibit the pre-synaptic norepinephrine transporter, resulting in inhibition of the presynaptic reabsorption of norepinephrine and prolongation of norepinephrine activity in the synaptic cleft. The effect on cognitive brain function may result in improved attention and decreased impulsivity and activity levels.
Targets(IC50)	5-HT Receptor,Norepinephrine,Dopamine Receptor
In vitro	Atomoxetine selectively inhibited the presynaptic uptake of norepinephrine by adrenergic neurons in animals and was also active in an animal model of depression. In microdialysis studies, Atomoxetine had no effect on 5-HTEX levels but increased extracellular norepinephrine levels in the prefrontal cortex by 3-fold. Atomoxetine did not alter DAEX and Fos in the nucleus ambiguus and striatum, but increased DAEX concentrations in the PFC by 3-fold and Fos by 3.7-fold.
In vivo	Atomoxetine is a selective inhibitor of norepinephrine reuptake (K _i : 5 nM) and relatively unselective for 5-hydroxytryptamine (K _i : 77 nM) and dopamine transporter protein (K _i : 1451 nM).

Solubility Information

Solubility	DMSO: 50 mg/mL (171.34 mM),Sonication is recommended. H2O: 6.9 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4268 mL	17.1338 mL	34.2677 mL
5 mM	0.6854 mL	3.4268 mL	6.8535 mL
10 mM	0.3427 mL	1.7134 mL	3.4268 mL
50 mM	0.0685 mL	0.3427 mL	0.6854 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Bymaster FP, et al. Neuropsychopharmacology, 2002, 27(5), 699-711.

Zerbe RL, et al. J Pharmacol Exp Ther, 1985, 232(1), 139-143.

Wong DT, et al. J Pharmacol Exp Ther, 1982, 222(1), 61-65.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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