Data Sheet (Cat.No.T0869)

TargetMol

Atomoxetine hydrochloride

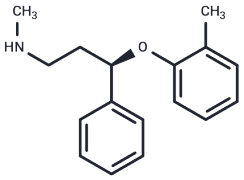
Chemical Properties

CAS No. : 82248-59-7

Formula: C17H22ClNO

Molecular Weight: 291.82

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



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,Adrenergic Receptor,Norepinephrine,Dopamine Receptor,Serotonin Transporter,Sodium Channel
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 (Ki: 5 nM) and relatively unselective for 5-hydroxytryptamine (Ki: 77 nM) and dopamine transporter protein (Ki: 1451 nM).

Solubility Information

Solubility	DMSO: 250 mg/mL (856.69 mM),Sonication is recommended. H2O: 6.9 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.85 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

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.