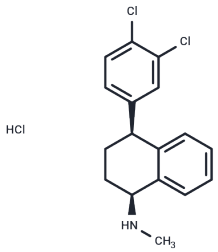
Data Sheet (Cat.No.T0482)

TargetMol

Sertraline hydrochloride

Chemical Properties



CAS No. : 79559-97-0

Formula: C17H18Cl3N

Molecular Weight: 342.69

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	Sertraline hydrochloride (Sertraline HCl) is a selective serotonin uptake inhibitor that is used in the treatment of depression.
Targets(IC50)	5-HT Receptor,Serotonin Transporter
In vitro	Sertraline HCl significantly enhances locomotor activity in mice during the antidepressant Porsolt forced swim test. Intraperitoneal injection of 32 μMol/kg Sertraline HCl inhibits more than 50% of 5-hydroxytryptamine uptake by rat striatal synaptosomes. Sertraline HCl reverses 5-hydroxytryptamine depletion caused by PCA, proving to be six times more effective than chlorpromazine and sixty times more effective than amitriptyline. Acute repetitive administration of Sertraline reduces the serotonin content in whole blood. Chronic administration of Sertraline HCl in rats decreases the binding of [3H] dihydroalprenolol to cortical membranes and the cyclic AMP response to norepinephrine in the limbic forebrain adenylate cyclase.
In vivo	Sertraline is more effective than fluvoxamine, zimelidine, norzimelidine, fluoxetine, or clomipramine in preferentially inhibiting the uptake of 5-HT (serotonin), with comparatively weaker inhibition of NE (norepinephrine) absorption. However, sertraline exhibits lower selectivity than these agents in blocking the uptake of 5-HT relative to DA (dopamine).

Solubility Information

Solubility	DMSO: 61.00 mg/mL (178.00 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: 2.00 mg/mL (5.84 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	2.9181 mL	14.5904 mL	29.1809 mL
5 mM	0.5836 mL	2.9181 mL	5.8362 mL
10 mM	0.2918 mL	1.459 mL	2.9181 mL
50 mM	0.0584 mL	0.2918 mL	0.5836 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

Koe BK, et al. J Pharmacol Exp Ther, 1983, 226(3), 686-700.
Qiu M, Li Z, Chen Y, et al. Tolcapone Potently Inhibits Seminal Amyloid Fibrils Formation and Blocks Entry of Ebola Pseudoviruses. Frontiers in Microbiology. 2020, 11: 504
Koe BK. J Pharmacol Exp Ther, 1976, 199(3), 649-661.
Aviles P, Altares R, van Andel L, et al. Metabolic Disposition of Lurbinectedin, a Potent Selective Inhibitor of Active Transcription of Protein-Coding Genes, in Nonclinical Species and Patients. Drug Metabolism and Disposition. 2022, 50(4): 327-340.
Qiu M, Li Z, Chen Y, et al. Tolcapone Potently Inhibits Seminal Amyloid Fibrils Formation and Blocks Entry of Ebola Pseudoviruses. Frontiers in Microbiology. 2020, 11: 504.

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