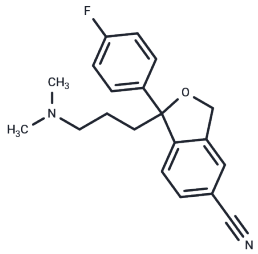
Data Sheet (Cat.No.T20828)

TargetMol

Citalopram

Chemical Properties



CAS No. : 59729-33-8

Formula: C20H21FN2O

Molecular Weight: 324.39

Storage: Keep away from moisture
Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Citalopram (Lu 10-171 is an orally active, selective serotonin reuptake inhibitor (SSRI), a selective 5-hydroxytryptamine reuptake inhibitor, and a racemic mixture of the S(+)-enantiomer (Escitalopram) and the R(-)-enantiomer.Citalopram exhibits antidepressant activity and enhances serotonergic neurotransmission. It can be used to study Alzheimer's disease.
Targets(IC50)	5-HT Receptor,Serotonin Transporter
In vitro	Citalopram exhibits concentration-dependent cytotoxicity when applied at concentrations ranging from 25 to 175 μM for 24 hours[4]. Specifically, at a concentration of 100 μM for 24 hours, Citalopram strongly downregulates the expression of MYBL2, BIRC5, BARD1, AURKA, CCNA2, and CCNE1 in B104 cells[4].
In vivo	Administered via intraperitoneal injection at doses ranging from 5 to 40 mg/kg, Citalopram reduces immobility time in DBA/2J mice but does not elicit a similar effect in C57BL/6J mice[3].

Solubility Information

Solubility	DMSO: 40 mg/mL (123.31 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2 mg/mL (6.17 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	3.0827 mL	15.4135 mL	30.8271 mL
5 mM	0.6165 mL	3.0827 mL	6.1654 mL
10 mM	0.3083 mL	1.5414 mL	3.0827 mL
50 mM	0.0617 mL	0.3083 mL	0.6165 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

Carlsson B, et al. Enantioselective analysis of citalopram and escitalopram in postmortem blood together with genotyping for CYP2D6 and CYP2C19. J Anal Toxicol. 2009;33(2):65-76.
Milne RJ, et al. Citalopram. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in depressive illness. Drugs. 1991;41(3):450-477.
Zeng-Liang Jin, et al. Mouse strain differences in SSRI sensitivity correlate with serotonin transporter binding and function. Sci Rep. 2017 Aug 17;7(1):8631.
Laurent Sakka, et al. Assessment of citalopram and escitalopram on neuroblastoma cell lines. Cell toxicity and gene modulation. Oncotarget. 2017 Jun 27;8(26):42789-42807.