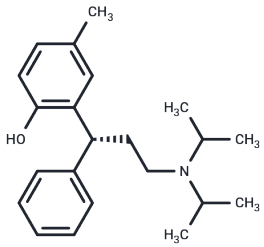
Data Sheet (Cat.No.T23229)

TargetMol

Tolterodine

Chemical Properties



CAS No. : 124937-51-5

Formula: C22H31NO

Molecular Weight: 325.49

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	Tolterodine ((R)-(+)-Tolterodine) is a novel and selective muscarinic-type receptor (mAChR) antagonist used in the treatment of detrusor instability and overactive bladder syndrome.
Targets(IC50)	AChR
In vivo	Tolterodine, as a competitive muscarinic acetylcholine receptor antagonist, works by binding to muscarinic receptors, preventing acetylcholine from binding to its receptors, thereby reducing the contractions of the bladder smooth muscle.

Solubility Information

Solubility	DMSO: 80 mg/mL (245.78 mM),Sonication is recommended. Ethanol: 100 mg/mL (307.23 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: 3.3 mg/mL (10.14 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	3.0723 mL	15.3615 mL	30.7229 mL
5 mM	0.6145 mL	3.0723 mL	6.1446 mL
10 mM	0.3072 mL	1.5361 mL	3.0723 mL
50 mM	0.0614 mL	0.3072 mL	0.6145 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

Nilvebrant L. Tolterodine and its active 5-hydroxymethyl metabolite: pure muscarinic receptor antagonists. Pharmacol Toxicol. 2002 May;90(5):260-7.
Andersson SH, et al. Biotransformation of tolterodine, a new muscarinic receptor antagonist, in mice, rats, and dogs. Drug Metab Dispos. 1998 Jun;26(6):528-35.
Cappon GD, et al. Tolterodine does not affect memory assessed by passive-avoidance response test in mice. Eur J Pharmacol. 2008 Jan 28;579(1-3):225-8.