Data Sheet (Cat.No.T0099)

TargetMol

Tolterodine tartrate

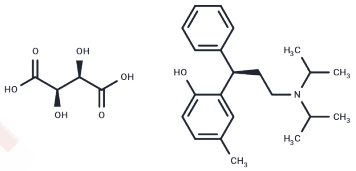
Chemical Properties

CAS No. : 124937-52-6

Formula: C22H31NO·C4H6O6

Molecular Weight: 475.58

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	Tolterodine tartrate (PNU-200583E) is a potent antagonist for muscarinic receptor. It show selectivity for the urinary bladder and salivary glands in vivo.
Targets(IC50)	AChR
In vitro	Tolterodine is a novel muscarinic receptor antagonist for the treatment of symptoms such as overactive bladder and urge incontinence.Tolterodine effectively and competitively inhibited carbamylcholine-induced contractions in guinea pig bladder isolation strips in a concentration-dependent manner.Tolterodine has a high affinity for muscarinic receptors, and its Ki values were 2.7 nM, 1.6 nM, 0.75 nM, 4.8 nM, and 3.3 nM in the bladder, heart,, cortex and human bladder in guinea pigs, respectively. The Ki values of Tolterodine in guinea pig bladder, heart, cerebral cortex, parotid gland and human bladder were 2.7 nM, 1.6 nM, 0.75 nM, 4.8 nM and 3.3 nM, respectively.
In vivo	Tolterodine is a novel muscarinic receptor antagonist for the treatment of symptoms such as overactive bladder and urge incontinence.Tolterodine effectively and competitively inhibited carbamylcholine-induced contractions in guinea pig bladder isolation strips in a concentration-dependent manner.Tolterodine has a high affinity for muscarinic receptors, and its Ki values were 2.7 nM, 1.6 nM, 0.75 nM, 4.8 nM, and 3.3 nM in the bladder, heart,, cortex and human bladder in guinea pigs, respectively. The Ki values of Tolterodine in guinea pig bladder, heart, cerebral cortex, parotid gland and human bladder were 2.7 nM, 1.6 nM, 0.75 nM, 4.8 nM and 3.3 nM, respectively.

Solubility Information

Solubility	Ethanol: 6 mg/mL (12.62 mM),Sonication is recommended. H2O: 14 mg/mL (29.44 mM),Sonication is recommended. DMSO: 88 mg/mL (185.04 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 (6.94 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	2.1027 mL	10.5135 mL	21.027 mL
5 mM	0.4205 mL	2.1027 mL	4.2054 mL
10 mM	0.2103 mL	1.0513 mL	2.1027 mL
50 mM	0.0421 mL	0.2103 mL	0.4205 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, et al. Life Sci, 1997, 60(13-14), 1129-1136.
Nilvebrant L, et al. Eur J Pharmacol, 1997, 327(2-3), 195-207.
Hedlund P, et al. J Urol, 2007, 178(1), 326-331.
Gadina M, et al. J Urol, 2005, 174(5), 2032-2036.
Kaiho Y, et al. BJU Int, 2008, 101(5), 615-620.