

## Tolterodine tartrate

## Chemical Properties

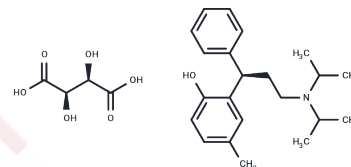
CAS No. : 124937-52-6

Formula: C<sub>22</sub>H<sub>31</sub>NO·C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>

Molecular Weight: 475.58

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## 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 K <sub>i</sub> 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 K <sub>i</sub> 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 K <sub>i</sub> 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 K <sub>i</sub> 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. H <sub>2</sub> O: 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)
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### 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.

### 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.

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