## **Product** Data Sheet

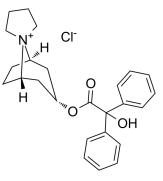
## **Trospium chloride**

Cat. No.: HY-B0461 CAS No.: 10405-02-4 Molecular Formula:  $C_{25}H_{30}CINO_3$ 

Molecular Weight: 427.96 mAChR Target:

Pathway: GPCR/G Protein; Neuronal Signaling 4°C, sealed storage, away from moisture Storage:

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



## **SOLVENT & SOLUBILITY**

In Vitro  $H_2O : \ge 100 \text{ mg/mL} (233.67 \text{ mM})$ 

> DMSO: 25 mg/mL (58.42 mM; Need ultrasonic) \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.3367 mL	11.6833 mL	23.3667 mL
	5 mM	0.4673 mL	2.3367 mL	4.6733 mL
	10 mM	0.2337 mL	1.1683 mL	2.3367 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: PBS Solubility: 100 mg/mL (233.67 mM); Clear solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.84 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.84 mM); Clear solution
- 4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.84 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Trospium chloride is an orally active, specific and competitive antagonist of muscarinic cholinergic receptors (mAChRs), Description with antimuscarinic activity. Trospium chloride binds to muscarinic receptors M1, M2 and M3 with high affinity, but not

nicotinic, cholinergic receptors<sup>[1][2]</sup>.

mAChRs<sup>[1][2]</sup> IC<sub>50</sub> & Target

REFERENCES
[1]. David RP Guay. Trospium chloride: an update on a quaternary anticholinergic for treatment of urge urinary incontinence. Ther Clin Risk Manag. 2005 Jun; 1(2): 157–167.
[2]. Eric S Rovner, et al. Trospium chloride in the management of overactive bladder. Drugs. 2004;64(21):2433-46.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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