

Product Data Sheet

Product Name: Trospium chloride

Cat. No.: GC17483

Chemical Properties

Cas. No. 10405-02-4

Chemical Name [(1R,5S)-spiro[8-azoniabicyclo[3.2.1]octane-8,1'-azolidin-1-ium]-3-yl] 2-hydroxy-2,2-diphenylacetate;chloride

SMILES C1CC[N+]2(C1)C3CCC2CC(C3)OC(=O)C(C4=CC=CC=C4)(C5=CC=CC=C5)O.[Cl-]

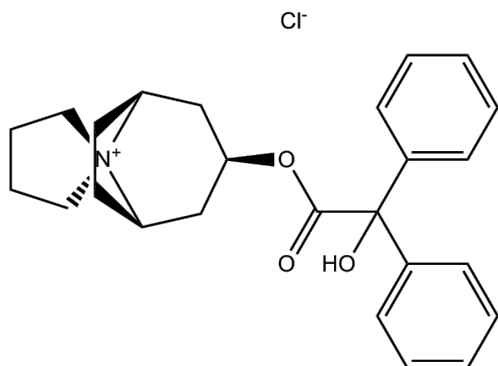
Formula $C_{25}H_{30}NO_3.Cl$ M.Wt 427.96

Solubility $\geq 21.4\text{mg/mL}$ in DMSO Storage Store at 2-8°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Trospium Chloride is a competitive muscarinic cholinergic receptor antagonist. Target: mAChR. Trospium chloride is an antimuscarinic agent indicated for the treatment of overactive bladder with symptoms of urge urinary incontinence, urgency, and urinary frequency. Trospium has pharmacologic properties that are distinct from other antimuscarinic agents [1]. After oral administration, absorption of the hydrophilic trospium chloride is slow and incomplete. Peak plasma concentrations (C_{max}) of approximately 4 ng/mL are reached 4-5 hours after administration of a 20 mg immediate-release preparation. The mean bioavailability is approximately 10% and decreases by

Caution: Product has not been fully validated for medical applications. For research use only.

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concomitant food intake (to a mean of 26% of the fasting area under the plasma concentration-time curve [AUC]). Trospium chloride displays dose proportional increases in AUC and C_{max} after a single dose within the clinically relevant dose range (20-60 mg). The mean volume of distribution is approximately 350-800 L [2].

References:

- [1]. Staskin, D.R., Trospium chloride: Distinct among other anticholinergic agents available for the treatment of overactive bladder. *Urol Clin North Am*, 2006. 33(4): p. 465-73, viii.
- [2]. Doroshenko, O., et al., Clinical pharmacokinetics of trospium chloride. *Clin Pharmacokinet*, 2005. 44(7): p. 701-20.

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