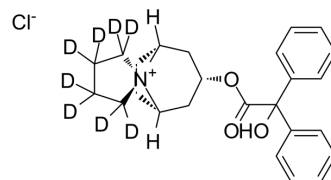


Tropium-d8 chloride

Cat. No.:	HY-B0461S
Molecular Formula:	C ₂₅ H ₂₂ D ₈ ClNO ₃
Molecular Weight:	436.01
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tropium-d8 chloride is the deuterium labeled Tropium chloride. Tropium chloride is an orally active, specific and competitive antagonist of muscarinic cholinergic receptors (mAChRs), with antimuscarinic activity. Tropium chloride binds to muscarinic receptors M1, M2 and M3 with high affinity, but not nicotinic, cholinergic receptors ^{[1][2]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. David RP Guay. Tropium chloride: an update on a quaternary anticholinergic for treatment of urge urinary incontinence. *Ther Clin Risk Manag.* 2005 Jun; 1(2): 157-167.
- [3]. Eric S Rovner, et al. Tropium chloride in the management of overactive bladder. *Drugs.* 2004;64(21):2433-46.

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

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