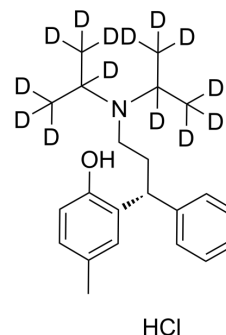


Tolterodine-d14 hydrochloride

Cat. No.:	HY-A0024S
CAS No.:	1217645-16-3
Molecular Formula:	C ₂₂ H ₁₈ D ₁₄ ClNO
Molecular Weight:	376.03
Target:	mAChR
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	Tolterodine-d ₁₄ (hydrochloride) is the deuterium labeled Tolterodine hydrochloride[1]. Tolterodine hydrochloride is a potent muscarinic receptor antagonist[2][3].
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 Feb;53(2):211-216.
- [2]. Nilvebrant L. Tolterodine and its active 5-hydroxymethyl metabolite: pure muscarinic receptor antagonists. *Pharmacol Toxicol*. 2002 May;90(5):260-7.
- [3]. Andersson SH, et al. Biotransformation of tolterodine, a new muscarinic receptor antagonist, in mice, rats, and dogs. *Drug Metab Dispos*. 1998 Jun;26(6):528-35.
- [4]. Cappon GD, et al. Tolterodine does not affect memory assessed by passive-avoidance response test in mice. *Eur J Pharmacol*. 2008 Jan 28;579(1-3):225-8.

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

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