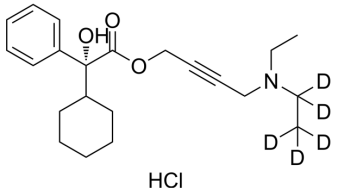
Oxybutynin-d_5 hydrochloride

Cat. No.:	HY-B0267BS
Molecular Formula:	$C_{22}H_{27}D_5ClNO_3$
Molecular Weight:	398.98
Target:	mAChR; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Oxybutynin-d_5 hydrochloride is deuterated labeled (R)-Oxybutynin hydrochloride (HY-B0267B). (R)-Oxybutynin hydrochloride, a (R)-isomer of Oxybutynin hydrochloride, is an orally active muscarinic receptor antagonist. (R)-Oxybutynin hydrochloride has antimuscarinic, antispasmodic and anticholinergic activity, competitively antagonizes Carbachol-induced contractions. (R)-Oxybutynin hydrochloride can be used for researching incontinence due to neurogenic bladder dysfunction[1][2][3]. (R)-Oxybutynin hydrochloride is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.
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]. Smith ER, et al. Comparison of the antimuscarinic and antispasmodic actions of racemic oxybutynin and desethyloxybutynin and their enantiomers with those of racemic terodiline. Arzneimittelforschung. 1998 Oct;48(10):1012-8.

[2]. Siddiqui MA, et al. Oxybutynin extended-release: a review of its use in the management of overactive bladder. Drugs. 2004;64(8):885-912.

[3]. Zobrist RH, et al. Pharmacokinetics of the R- and S-enantiomers of oxybutynin and N-desethyloxybutynin following oral and transdermal administration of the racemate in healthy volunteers. Pharm Res. 2001 Jul;18(7):1029-34.

[4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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