Drotaverine-d_{10} hydrochloride

Cat. No.: HY-108974S

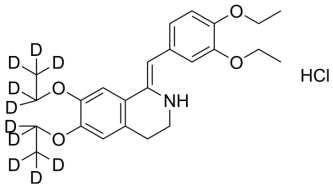
Molecular Formula: $C_{24}H_{22}D_{10}ClNO_4$

Molecular Weight: 444.03

Target: Phosphodiesterase (PDE); Calcium Channel; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel; Neuronal Signaling; Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Drotaverine-d_{10} (hydrochloride) is the deuterium labeled Drotaverine hydrochloride. Drotaverine hydrochloride is a type 4 cyclic nucleotide phosphodiesterase (PDE4) inhibitor and an L-type voltage-dependent calcium channel (L-VDCC) blocker, blocks the degradation of 3',5'-cyclic adenosine monophosphate. Drotaverine hydrochloride exhibits in vivo antispasmodic efficacy without anticholinergic effects[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]. Patai Z, Guttman A, Mikus EG. Assessment of the Airway Smooth Muscle Relaxant Effect of Drotaverine. Pharmacology. 2018;101(3-4):163-169.

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