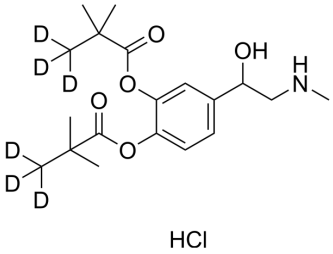
Dipivefrin-d_6 hydrochloride

Cat. No.:	HY-B1323S
Molecular Formula:	$C_{19}H_{24}D_6ClNO_5$
Molecular Weight:	393.94
Target:	Endogenous Metabolite; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dipivefrin-d_6 (hydrochloride) is deuterium labeled Dipivefrin (hydrochloride). Dipivefrin hydrochloride (Dipivefrine hydrochloride) is an antiglaucoma proagent that is hydrolyzed to the active compound, epinephrine, by esterases in the cornea[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]. Anderson JA, et al. Effects of echothiophate on enzymatic hydrolysis of dipivefrin. Arch Ophthalmol. 1984 Jun;102(6):913-6.

[3]. Edgar DF, et al. Effects of dipivefrin and pilocarpine on pupil diameter, automated perimetry and LogMAR acuity. Graefes Arch Clin Exp Ophthalmol. 1999 Feb;237(2):117-24.

[4]. Introini-Collison I, et al. Memory-enhancing effects of post-training dipivefrin and epinephrine: involvement of peripheral and central adrenergic receptors. Brain Res. 1992 Feb 14;572(1-2):81-6.

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