Pirenzepine-d_8

Cat. No.: HY-17037S

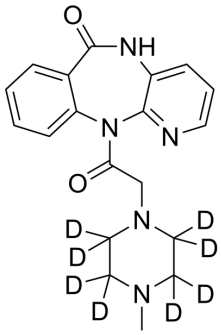
Molecular Formula: $C_{19}H_{13}D_8N_5O_2$

Molecular Weight: 359.45

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	Pirenzepine-d_8 is the deuterium labeled Pirenzepine dihydrochloride. Pirenzepine dihydrochloride (LS519) is a selective M1 muscarinic receptor antagonist.
IC_{50} & Target	mAChR1
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]. Del Tacca M, et al. A selective antimuscarinic agent: pirenzepine. Review of its pharmacologic and clinical properties. Minerva Dietol Gastroenterol. 1989 Jul-Sep;35(3):175-89.

[3]. Ojewole JA, et al. Effects of pirenzepine (Gastrozepin) on skeletal muscle contractility. Methods Find Exp Clin Pharmacol. 1983 Nov;5(9):619-23.

[4]. Caulfield MP, et al. Central administration of the muscarinic receptor subtype-selective antagonist pirenzepine selectively impairs passiveavoidance learning in the mouse. J Pharm Pharmacol. 1983 Feb;35(2):131-2.

[5]. Hirschowitz BI, et al. Effects of pirenzepine and atropine on vagal and cholinergic gastric secretion and gastrin release and on heart rate in the dog. J Pharmacol Exp Ther. 1983 May;225(2):263-8.

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