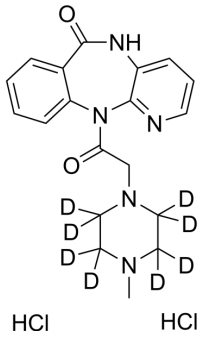
Pirenzepine-d_8 dihydrochloride

Cat. No.:	HY-17037S1
Molecular Formula:	$C_{19}H_{15}D_8Cl_2N_5O_2$
Molecular Weight:	432.37
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Pirenzepine-d_8 (LS 519-d_8; Pirenzepin-d_8) dihydrochloride is a deuterium labeled Pirenzepine (dihydrochloride) (HY-17037). Pirenzepine (LS 519) dihydrochloride is a selective M1 mAChR (muscarinic acetylcholine receptor) antagonist. Pirenzepine dihydrochloride reduces gastric acid secretion and reduces muscle spasm, can be used in peptic ulcers research. Pirenzepine dihydrochloride shows anti-proliferative activity to cancer cells[1][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]. Carmine AA, et al. Pirenzepine. A review of its pharmacodynamic and pharmacokinetic properties and therapeutic efficacy in peptic ulcer disease and other allied diseases. Drugs. 1985 Aug;30(2):85-126.

[2]. Yin QQ, et al. Muscarinic acetylcholine receptor M1 mediates prostate cancer cell migration and invasion through hedgehog signaling. Asian J Androl. 2018 Nov-Dec;20(6):608-614.

[3]. Yabuki Y, et al. The T-type calcium channel enhancer SAK3 inhibits neuronal death following transient brain ischemia via nicotinic acetylcholine receptor stimulation. Neurochem Int. 2017 Sep;108:272-281.

[4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-246.

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