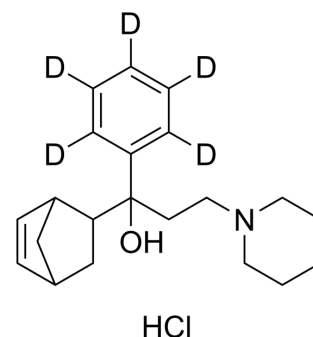


Biperiden-d₅ hydrochloride

Cat. No.:	HY-13204S
Molecular Formula:	C ₂₁ H ₂₅ D ₅ ClNO
Molecular Weight:	352.95
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	Biperiden-d ₅ (hydrochloride) is the deuterium labeled Biperiden hydrochloride. Biperiden (KL 373) hydrochloride is an antiparkinsonian agent, which is the selective central M1 cholinoreceptors blocker.
IC₅₀ & 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]. Pehl C, et al. Effects of two anticholinergic drugs, trospium chloride and biperiden, on motility and evoked potentials of the oesophagus. *Aliment Pharmacol Ther.* 1998 Oct;12(10)
- [3]. Kornhuber J, et al. Identification of novel functional inhibitors of acid sphingomyelinase. *PLoS One.* 2011;6(8)
- [4]. Myhrer T, et al. Antiparkinson drugs used as prophylactics for nerve agents: studies of cognitive side effects in rats. *Pharmacol Biochem Behav.* 2008 Jun;89(4):633-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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