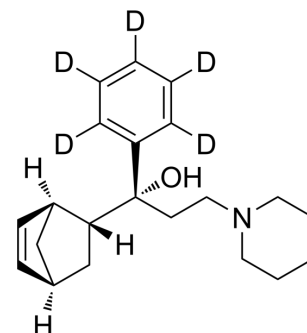


rel-Biperiden EP impurity B-d₅

Cat. No.:	HY-13204S3
Molecular Formula:	C ₂₁ H ₂₄ D ₅ NO
Molecular Weight:	316.49
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	rel-Biperiden EP impurity B-d ₅ is deuterium labeled Biperiden (hydrochloride).
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]. Kornhuber J, et al. Identification of novel functional inhibitors of acid sphingomyelinase. *PLoS One.* 2011;6(8)
- [3]. 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.
- [4]. 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)

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

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