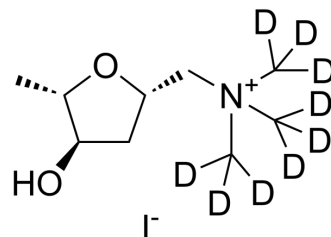


Muscarine-d₉ iodide

Cat. No.:	HY-107654S
Molecular Formula:	C ₉ H ₁₁ D ₉ INO ₂
Molecular Weight:	310.22
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	Muscarine-d ₉ (iodide) is the deuterium labeled Muscarine iodide. Muscarine ((+)-Muscarine) iodide is a toxin that can stimulate the parasympathetic nervous system. Muscarine iodide is a prototype muscarinic acetylcholine receptor agonist[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]. Beatrice Mihaela Radu, et al. All muscarinic acetylcholine receptors (M 1-M 5) are expressed in murine brain microvascular endothelium. *Sci Rep.* 2017 Jul 11;7(1):5083.
- [3]. Z Z Pan, et al. Muscarine hyperpolarizes a subpopulation of neurons by activating an M2 muscarinic receptor in rat nucleus raphe magnus in vitro. *J Neurosci.* 1994 Mar;14(3 Pt 1):1332-8.

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

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