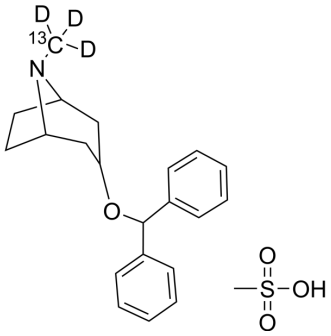
Benztropine-$^{13}C,d_3$ mesylate

Cat. No.:	HY-B0520AS
Molecular Formula:	$C_{21}{}^{13}CH_{26}D_3NO_4S$
Molecular Weight:	407.55
Target:	Dopamine Receptor; Histamine Receptor; mAChR; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Neuronal Signaling; Immunology/Inflammation; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Benztropine-$^{13}C,d_3$ (mesylate) is the ^{13}C- and deuterium labeled Benztropine (mesylate). Benztropine mesylate (Benzatropine mesylate) is an orally active centrally acting anticholinergic agent that can be used for Parkinson's disease research. Benztropine mesylate is an anti-histamine agent and a dopamine re-uptake inhibitor. Benztropine mesylate is also a human D2 dopamine receptor allosteric antagonist. Benztropine mesylate also has anti-CSCs (cancer stem cells) effects[1][2].	
IC_{50} & Target	D_3 Receptor	D_2 Receptor
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[43]. 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):211-223.

[2]. Jihong Cui, et al. New use of an old drug: inhibition of breast cancer stem cells by benztropine mesylate. Oncotarget. 2017 Jan 3;8(1):1007-1022.

[3]. Santosh S Kulkarni, et al. Comparative structure-activity relationships of benztropine analogues at the dopamine transporter and histamine H(1) receptors. Bioorg Med Chem. 2006 Jun 1;14(11):3625-34.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA