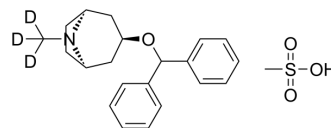


## Benztropine-d<sub>3</sub> mesylate

<b>Cat. No.:</b>	HY-B0520AS1
<b>CAS No.:</b>	202529-16-6
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>26</sub> D <sub>3</sub> NO <sub>4</sub> S
<b>Molecular Weight:</b>	406.55
<b>Target:</b>	Dopamine Receptor; Histamine Receptor; mAChR
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling; Immunology/Inflammation
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Benzotropine-d <sub>3</sub> (mesylate) is the deuterium labeled Benzotropine mesylate[1]. Benzotropine mesylate (Benzatropine mesylate) is an orally active centrally acting anticholinergic agent that can be used for Parkinson's disease research. Benzotropine mesylate is an anti-histamine agent and a dopamine re-uptake inhibitor. Benzotropine mesylate is also a human D <sub>2</sub> dopamine receptor allosteric antagonist. Benzotropine mesylate also has anti-CSCs (cancer stem cells) effects[2][3].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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 Feb;53(2):211-216.
- [2]. 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.
- [3]. Jihong Cui, et al. New use of an old drug: inhibition of breast cancer stem cells by benztropine mesylate. *Oncotarget*. 2017 Jan 38(1):1007-1022.

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

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