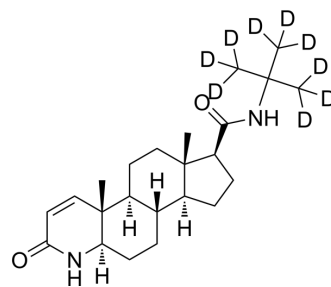


## Finasteride-d<sub>9</sub>

<b>Cat. No.:</b>	HY-13635S
<b>CAS No.:</b>	1131342-85-2
<b>Molecular Formula:</b>	C <sub>23</sub> H <sub>27</sub> D <sub>9</sub> N <sub>2</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	381.6
<b>Target:</b>	5 alpha Reductase; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Finasteride-d <sub>9</sub> is deuterium labeled Finasteride. Finasteride (MK-906) is a potent and competitive 5α-reductase inhibitor, with an IC <sub>50</sub> of 4.2 nM for type II 5α-reductase. Finasteride has approximately a 100-fold greater affinity for type II 5α-reductase enzyme than for the type I enzyme. Finasteride can be used for the research of benign prostatic hyperplasia (BPH) and androgenic alopecia[1][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;53(2):211-216.
- [2]. Flores E, et, al. Steroid 5alpha-reductase inhibitors. *Mini Rev Med Chem.* 2003 May;3(3):225-37.
- [3]. Sirinarumitr K, et, al. Effects of finasteride on size of the prostate gland and semen quality in dogs with benign prostatic hypertrophy. *J Am Vet Med Assoc.* 2001 Apr 15;218(8):1275-80.
- [4]. Yun DK, et, al. Finasteride Increases the Expression of Hemoxygenase-1 (HO-1) and NF-E2-Related Factor-2 (Nrf2) Proteins in PC-3 Cells: Implication of Finasteride-Mediated High-Grade Prostate Tumor Occurrence. *Biomol Ther (Seoul).* 2013 Jan;21(1):49-53.

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

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