

PRODUCT INFORMATION



Finasteride-d₉ Item No. 28482

CAS Registry No.: 1131342-85-2
Formal Name: (4aR,4bS,6aS,7S,9aS,9bS,11aR)-4a,6a-dimethyl-N-(2-(methyl-d₃)propan-2-yl-1,1,1,3,3,3-d₆)-2-oxo-2,4a,4b,5,6,6a,7,8,9,9a,9b,10,11,11a-tetradecahydro-1H-indeno[5,4-f]quinoline-7-carboxamide

Synonym: MK-906-d₉
MF: C₂₃H₂₇D₉N₂O₂
FW: 381.6

Chemical Purity: ≥95% (Finasteride)

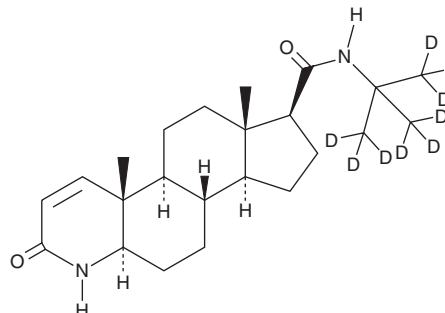
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Finasteride-d₉ is intended for use as an internal standard for the quantification of finasteride (Item No. 14938) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Finasteride-d₉ is supplied as a solid. A stock solution may be made by dissolving the finasteride-d₉ in the solvent of choice, which should be purged with an inert gas. Finasteride-d₉ is slightly soluble in chloroform and methanol.

Description

Finasteride is a 4-azasteroid competitive inhibitor of 5 α -reductase type II (IC₅₀ = 4.2 nM) and a derivative of testosterone.¹ It is 100-fold selective for 5 α -reductase type II over type I. Finasteride (10 μ M) does not affect the growth of androgen-refractory PC3 prostate cancer cells but increases the protein levels of Nrf2 and heme oxygenase-1 (HO-1).² It decreases prostatic diameter and volume, as well as dihydrotestosterone, but not testosterone, serum levels in dogs with spontaneous benign prostatic hypertrophy when administered at doses of 0.1 and 0.5 mg/kg.³ Finasteride reduces testosterone-induced type I procollagen and TGF- β 1 protein levels in cultured human scalp dermal fibroblasts in a model of androgenic alopecia when applied at a concentration of 0.1 μ M.⁴ Formulations containing finasteride have been used in the treatment of benign prostatic hyperplasia and androgenic alopecia in men.

References

1. Flores, E., Bratoeff, E., Cabeza, M., et al. *Mini Rev. Med. Chem.* **3**(3), 225-237 (2003).
2. Yun, D.-K., Lee, J., and Keum, Y.-S. *Biomol. Ther. (Seoul)* **21**(1), 49-53 (2013).
3. Sirinarumitr, K., Johnston, S.D., Kustritz, M.V.R., et al. *J. Am. Vet. Med. Assoc.* **218**(8), 1275-1280 (2001).
4. Yoo, H.G., Kim, J.S., Lee, S.R., et al. *Biol. Pharm. Bull.* **29**(6), 1246-1250 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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