

Product Data Sheet

Product Name: Finasteride-d9

Cat. No.: GC47350

Chemical Properties

Cas. No. 1131342-85-2

SMILES O=C(NC(C([2H])([2H])[2H])(C([2H])([2H])[2H])C([2H])([2H])[2H])[C@H]1CC[C@]2([H])[C@]1(C)CC[C@@]3([H])[C@@]2([H])CC[C@]4([H])[C@]3(C)C=CC(N4)=O

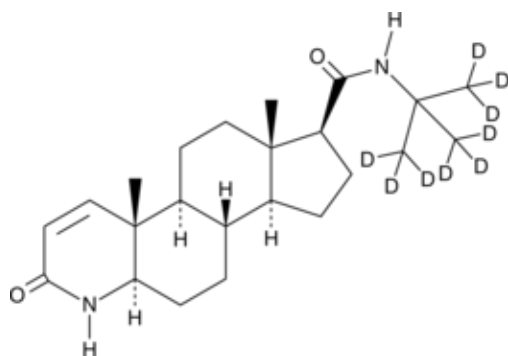
Formula C₂₃H₂₇D₉N₂O₂ M.Wt 381.6

Solubility Chloroform: slightly soluble, Methanol: slightly soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Finasteride-d₉ is intended for use as an internal standard for the quantification of finasteride by GC- or LC-MS. 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

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

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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.

- 1.Flores, E., Bratoeff, E., Cabeza, M., et al.Steroid 5 α -reductase inhibitorsMini Rev. Med. Chem.3(3)225-237(2003)
- 2.Yun, D.-K., Lee, J., and Keum, Y.-S.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 occurrenceBiomol. Ther. (Seoul)21(1)49-53(2013)
- 3.Sirinarumitr, K., Johnston, S.D., Kustritz, M.V.R., et al.Effects of finasteride on size of the prostate gland and semen quality in dogs with benign prostatic hypertrophyJ. Am. Vet. Med. Assoc.218(8)1275-1280(2001)
- 4.Yoo, H.G., Kim, J.S., Lee, S.R., et al.Perifollicular fibrosis: Pathogenetic role in androgenetic alopeciaBiol. Pharm. Bull.29(6)1246-1250(2006)

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