Abiraterone acetate-d4

Cat. No.: HY-75054S

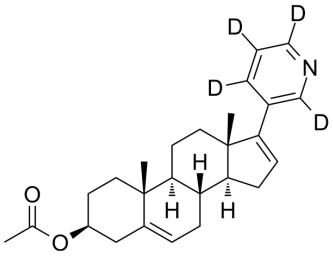
Molecular Formula: $C_{26}H_{29}D_4NO_2$

Molecular Weight: 395.57

Target: Cytochrome P450; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Abiraterone acetate-d_4 is the deuterium labeled Abiraterone acetate. Abiraterone acetate (CB7630) is an oral, potent, selective, and irreversible inhibitor of CYP17A1 with antiandrogen activity. Abiraterone acetate is a proagent form of Abiraterone (CB7598).
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[1]. 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]. Stein MN, et al. Androgen synthesis inhibitors in the treatment of castration-resistant prostate cancer. Asian J Androl. 2014 May-Jun;16(3):387-400.

[3]. Richards J, et al. Interactions of abiraterone, eplerenone, and prednisolone with wild-type and mutant androgen receptor: a rationale for increasing abiraterone exposure or combining with MDV3100. Cancer Res. 2012 May 1;72(9):2176-82.

[4]. Li R, et al. Abiraterone inhibits 3β-hydroxysteroid dehydrogenase: a rationale for increasing drug exposure in castration-resistant prostate cancer. Clin Cancer Res. 2012 Jul 1;18(13):3571-9.

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[6]. A O'Donnell, et al. Hormonal impact of the 17α-hydroxylase/C17,20-lyase inhibitor abiraterone acetate (CB7630) in patients with prostate cancer. British Journal of Cancervolume 90, pages2317–2325 (2004)

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