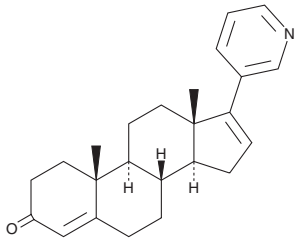
PRODUCT INFORMATION

Δ^4-Abiraterone

Item No. 27594

CAS Registry No.: 154229-21-7
Formal Name: 17-(3-pyridinyl)-androsta-4,16-dien-3-one
Synonyms: CB 7627, D4A
MF: $C_{24}H_{29}NO$
FW: 347.5
Purity: ≥98%
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

Δ^4-Abiraterone (D4A) is supplied as a solid. A stock solution may be made by dissolving the D4A in the solvent of choice, which should be purged with an inert gas. D4A is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

Description

D4A is an active metabolite of the CYP17A1 inhibitor abiraterone (Item No. 9002768).[1] D4A is an androgen receptor antagonist (IC_{50} = 5.3 nM) that reduces expression of the androgen receptor target genes *PSA*, *TMPRSS2*, and *FKBP5* in LNCaP, LAPC4, and C4-2 cell lines. It inhibits the cytochrome P450 (CYP) isoform CYP17A1 by 66.5% when used at a concentration of 1 nM. D4A (10 µM) also blocks SRD5A conversion of Δ^4-androstenedione to 5α-androstanedione in LAPC4 cells. *In vivo*, D4A delays tumor progression in a VCaP mouse xenograft model and increases progression-free survival in a C4-2 mouse xenograft model.

Reference

1. Li, Z., Bishop, A.C., Alyamani, M., *et al*. Conversion of abiraterone to D4A drives anti-tumour activity in prostate cancer. *Nature* **523(7560),** 347-351 (2015).

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