Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Abiraterone (acetate)

Catalog No: tcsc0544

Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg

Size: 200mg

Size: 500mg

Size: 1g

Size: 2g

Size: 5g

Specifications

CAS No:
154229-18-2

Formula:
$C_{26}H_{33}NO_2$

Pathway:
Metabolic Enzyme/Protease

Target:
Cytochrome P450

Purity / Grade:
>98%

Solubility:

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DMSO : 13.3 mg/mL (33.97 mM; Need ultrasonic and warming)

Alternative Names:
CB7630

Observed Molecular Weight:
391.55

Product Description

Abiraterone acetate is an oral, potent, selective, and irreversible inhibitor of **CYP17**.

IC50 & Target: CYP17[1]

In Vitro: Abiraterone (Abi) acetate is an ester prodrug of the anticancer agent Abiraterone, which shows IC_{50} values of 15 nM and 2.5 nM for the 17,20-lyase and 17α-hydroxylase (CYP17 is a bifunctional enzyme with both 17α-hydroxylase and 17,20-lyase activity). Abiraterone inhibits human 17,20-lyase and 17α-hydroxylase with IC_{50} of 27 and 30 nM respectively[1].

Significant inhibition of proliferation of the AR-positive prostate cancer cell lines LNCaP and VCaP with doses of Abiraterone ≥5 μM is confirmed[2]. Abiraterone inhibits recombinant human 3βHSD1 and 3βHSD2 activity with competitive K_i values of 2.1 and 8.8 μM. 10 μM Abiraterone is sufficient to completely block synthesis of 5α-dione and DHT in both cell lines.Treatment with Abiraterone significantly inhibited CRPC progression in the robustly growing subset, effectively putting a ceiling on tumor growth over 4 weeks of treatment (P[3].

In Vivo: Abiraterone (Abi) acetate prolongs survival in castration-resistant prostate cancer (CRPC). [^{3}H]-dehydroepiandrosterone (DHEA) depletion and Δ^4-androstenedione (AD) accumulation are inhibited by Abiraterone in LNCaP, with an IC_{50}[3].