

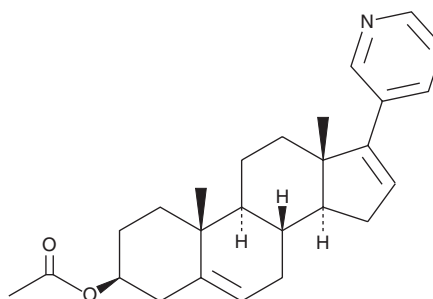
PRODUCT INFORMATION



Abiraterone Acetate

Item No. 15148

CAS Registry No.: 154229-18-2
Formal Name: (3 β)-17-(3-pyridinyl)-androsta-5,16-dien-3-ol, acetate ester
Synonym: CB-7630
MF: C₂₆H₃₃NO₂
FW: 391.6
Purity: \geq 98%
UV/Vis.: λ_{max} : 254 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Abiraterone acetate is supplied as a crystalline solid. A stock solution may be made by dissolving the abiraterone acetate in the solvent of choice, which should be purged with an inert gas. Abiraterone acetate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of abiraterone acetate is approximately 16 mg/ml in ethanol and DMF and approximately 2 mg/ml in DMSO.

Abiraterone acetate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, abiraterone acetate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Abiraterone acetate has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Abiraterone acetate is an inhibitor of the cytochrome P450 (CYP) isoform CYP17A1 (IC₅₀'s = 17 and 18 nM for inhibition of C_{17,20}-lyase and 17 α -hydroxylase activities, respectively).¹ It is also a prodrug form of abiraterone (Item No. 9002768).² Abiraterone acetate reduces plasma testosterone levels, increases plasma luteinizing hormone levels, and reduces ventral prostate, seminal vesicle, testis, and kidney weight in mice when administered at doses of 0.1 and 0.5 mmol/kg per day. It also reduces severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) viral load in the culture supernatant of infected Vero E6 cells (EC₉₀ = 8.4 μ M) and is active in a plaque reduction assay (EC₅₀ = 1.94 μ M).³ Formulations containing abiraterone acetate have been used in combination therapy for the treatment of metastatic castration-resistant prostate cancer.

References

1. Potter, G.A., Barrie, S.E., Jarman, M., *et al.* Novel steroidal inhibitors of human cytochrome P450_{17 α} (17 α -hydroxylase-C_{17,20}-lyase): Potential agents for the treatment of prostatic cancer. *J. Med. Chem.* **38(13)**, 2463-2471 (1995).
2. Barrie, S.E., Potter, G.A., Goddard, P.M., *et al.* Pharmacology of novel steroidal inhibitors of cytochrome P450_{17 α} (17 α -hydroxylase/C17-20 lyase). *J. Steroid Biochem. Mol. Biol.* **50(5-6)**, 267-273 (1994).
3. Yuan, S., Chan, J.F.W., Chik, K.K.H., *et al.* Discovery of the FDA-approved drugs bexarotene, cetilistat, diiodohydroxyquinoline, and abiraterone as potential COVID-19 treatments with a robust two-tier screening system. *Pharmacol. Res.* **159(104960)**, (2020).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/07/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM