

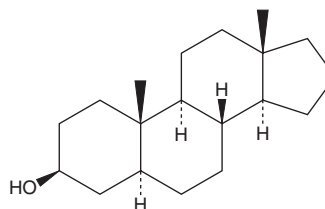
PRODUCT INFORMATION



5 α -Androstan-3 β -ol

Item No. 34719

CAS Registry No.: 1224-92-6
Synonym: NSC 50887
MF: C₁₉H₃₂O
FW: 276.5
Purity: $\geq 98\%$
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

5 α -Androstan-3 β -ol is supplied as a solid. A stock solution may be made by dissolving the 5 α -androstan-3 β -ol in the solvent of choice, which should be purged with an inert gas. 5 α -Androstan-3 β -ol is soluble in the organic solvent chloroform.

Description

5 α -Androstan-3 β -ol is a steroidal androgen.¹ It binds to the androgen receptor in a cell-free assay (IC_{50} = 1.7 μ M) and activates the pregnane X receptor (PXR) in HepG2 cells in a reporter assay (EC_{50} = 0.8 μ M).^{1,2} 5 α -Androstan-3 β -ol also inhibits the androst-4-ene-3,17-dione hydroxylase activities of 16 α - and 6 β -hydroxylase but not 16 β - or 7 α -hydroxylase (IC_{50} s = 70, 110, >150, and >150 μ M, respectively).³ It decreases testis weight and sperm production in mice when administered at a dose of 30 mg/kg.⁴

References

1. Fang, H., Tong, W., Branham, W.S., *et al.* Study of 202 natural, synthetic, and environmental chemicals for binding to the androgen receptor. *Chem. Res. Toxicol.* **16**(10), 1338-1358 (2003).
2. Ekins, S., Chang, C., Mari, S., *et al.* Human pregnane X receptor antagonists and agonists define molecular requirements for different binding sites. *Mol. Pharmacol.* **72**(3), 592-603 (2007).
3. Murray, M. and Mehta, I. Structure-activity relationships in the *in vitro* modulation of rat hepatic microsomal androst-4-ene-3,17-dione hydroxylase activities by derivatives of 5 α - and 5 β -androstan-3 β -ol. *J. Steroid Biochem.* **35**(3-4), 465-471 (1990).
4. Martinot, E., Baptissart, M., Véga, A., *et al.* Bile acid homeostasis controls CAR signaling pathways in mouse testis through FXR α . *Sci. Rep.* **7**, 42182 (2017).

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.

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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