

Product Data Sheet

Product Name: 5 α -Androstan-3 β -ol

Cat. No.: GC49542

Chemical Properties

Cas. No. 1224-92-6

SMILES C[C@@]12[C@]3([H])[C@](CC[C@@]1([H])C[C@H](CC2)O)([H])[C@@]4([H])[C@](C3)(CCC4)C

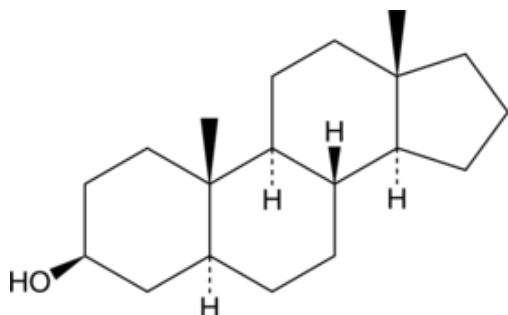
Formula C₁₉H₃₂O M.Wt 276.5

Solubility Chloroform: soluble Storage -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

5 α -Androstan-3 β -ol is a steroidal androgen.¹ It binds to the androgen receptor in a cell-free assay (IC₅₀ = 1.7 μ M) and activates the pregnane X receptor (PXR) in HepG2 cells in a reporter assay (EC₅₀ = 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 (IC₅₀s = 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

1. Fang, H., Tong, W., Branham, W.S., et al. Study of 202 natural, synthetic, and environmental

Caution: Product has not been fully validated for medical applications. For research use only.

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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 -androstane *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 *AlphaSci. Rep.* 742182(2017)

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