

Androsterone

Catalog No: tcsc0014230



Available Sizes

Size: 100mg

Size: 250mg



Specifications

CAS No:

53-41-8

Formula:

$C_{19}H_{30}O_2$

Pathway:

Metabolic Enzyme/Protease;Metabolic Enzyme/Protease

Target:

FXR;Endogenous Metabolite

Purity / Grade:

>98%

Solubility:

10 mM in DMSO

Alternative Names:

5 α -Androstan-3 α -ol-17-one

Observed Molecular Weight:

290.44

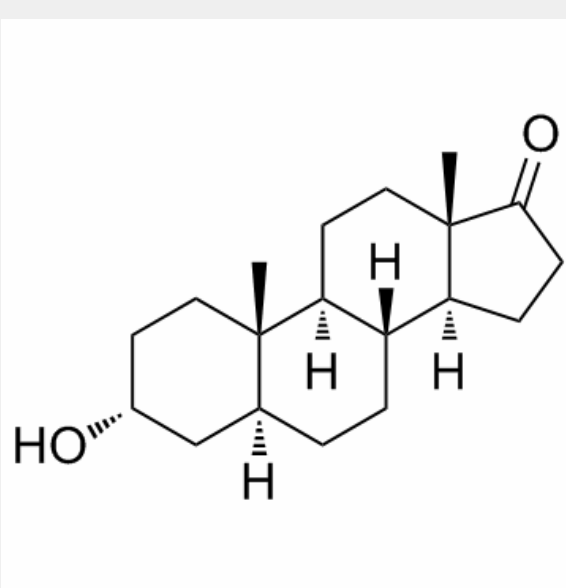
Product Description

Androsterone is a metabolic product of testosterone and can activate **Farnesoid X Receptor (FXR)**.

IC50 & Target: FXR^[1]

In Vitro: Androsterone activates both the mFXR-LBD and the hFXR-LBD, with Androsterone activating the mFXR-LBD more strongly than the hFXR-LBD. Furthermore, cotransfection studies with gal4-hFXR-LBD and SRC-1/VP16 expression plasmids demonstrate that Androsterone potentiates the interaction of SRC-1 with the hFXR-LBD. Several amino acid changes including H294S, S332V, R351H, and Y361F significantly reduce Androsterone activation^[1]. Androsterone (5 α , 3 α -A) (10 to 100 μ M) also inhibits epileptiform discharges in a concentration-dependent fashion in the *in vitro* slice model^[2].

In Vivo: Androsterone treatment results in a significant induction of small heterodimer partner (SHP), suggesting Androsterone may activate endogenous FXR^[1]. Intraperitoneal injection of Androsterone (5 α , 3 α -A) protects mice in a dose-dependent fashion from seizures in the following models (ED₅₀, dose in mg/kg protecting 50% of animals): 6 Hz electrical stimulation (29.1), pentylenetetrazol (43.5), pilocarpine (105), 4-AP (215), and maximal electroshock (224)^[2].



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