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

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:
5α-Androstan-3α-ol-17-one

Observed Molecular Weight:
290.44

Product Description

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

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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 (5α, 3α-A) (10 to 100 μM) 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 (5α, 3α-A) protects mice in a dose-dependent fashion from seizures in the following models (ED_{50}, 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].