

Alpha-Estradiol

Catalog No: tcsc0014231



Available Sizes

Size: 100mg

Size: 500mg



Specifications

CAS No:

57-91-0

Formula:

$C_{18}H_{24}O_2$

Pathway:

Metabolic Enzyme/Protease;Metabolic Enzyme/Protease

Target:

5 alpha Reductase;Endogenous Metabolite

Purity / Grade:

>98%

Solubility:

DMSO : 103.3 mg/mL (379.25 mM; Need ultrasonic)

Alternative Names:

Alfatradiol;Epiestradiol;Epiestrol

Observed Molecular Weight:

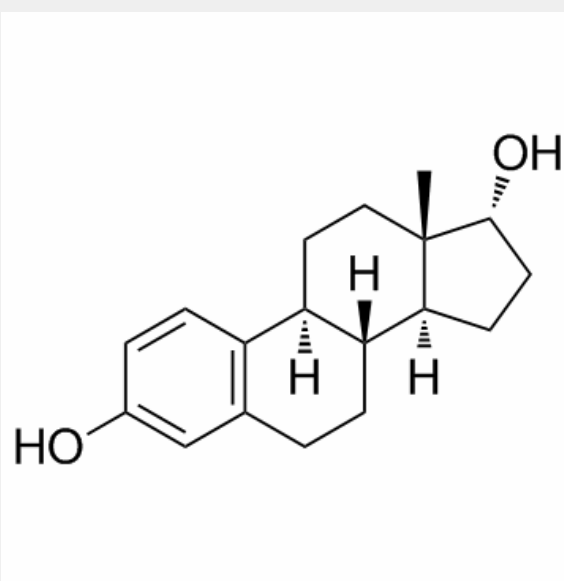
272.38

Product Description

Alpha-Estradiol is a weak estrogen and a **5 α -reductase** inhibitor which is used as a topical medication in the treatment of androgenic alopecia.

In Vitro: Alpha-Estradiol (17 alpha-Estradiol) is a 5 α -reductase inhibitor, and inhibits testosterone metabolism catalyzed by 5 alpha-reductase^[1]. Alpha-Estradiol (17 Alpha-estradiol, 10 μ M) attenuates LPS-induced inflammatory markers in both C57BL/6J male and female mouse embryonic fibroblast (MEF) cells, primary pre-adipocytes and differentiated 3T3-L1 adipocytes in an ER α -dependent manner, and such effects are through decreased NF κ B-p65 and increased ER α protein expression^[2].

In Vivo: Alpha-Estradiol (17-alpha-estradiol, 0.01, 0.1, 1 μ g) significantly reduces the percentage of central avascular/total retina area of the mouse pups. Alpha-Estradiol (1 μ g) markedly decreases malondialdehyde (MDA) levels on postnatal days (PND) 9, 13, and 17 in retinas of hyperoxia-exposed pups. Alpha-Estradiol (1 μ g) also decreases the number of NADPH-oxidase-positive cells, NADPH oxidase concentration and activity in retinas of the pups. In the 1.0- μ g Alpha-Estradiol-treated pups, VEGF retinal concentrations are high on PND 9 but lower on PND 14 and 17. The best effect in retinas of 1.0- μ g Alpha-Estradiol-treated pups is partly reversed by ICI182780 on PND 14 and 17^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!