

Estradiol

Catalog No: **tcsc1938**



Available Sizes

Size: 1g



Specifications

CAS No:

50-28-2

Formula:

$C_{18}H_{24}O_2$

Pathway:

Others;Metabolic Enzyme/Protease

Target:

Estrogen Receptor/ERR;Endogenous Metabolite

Purity / Grade:

>98%

Solubility:

DMSO : 150 mg/mL (550.70 mM; Need ultrasonic); Ethanol : 20 mg/mL (73.43 mM; Need ultrasonic)

Alternative Names:

β-Estradiol;E2;17β-Estradiol;17β-Oestradiol

Observed Molecular Weight:

272.38

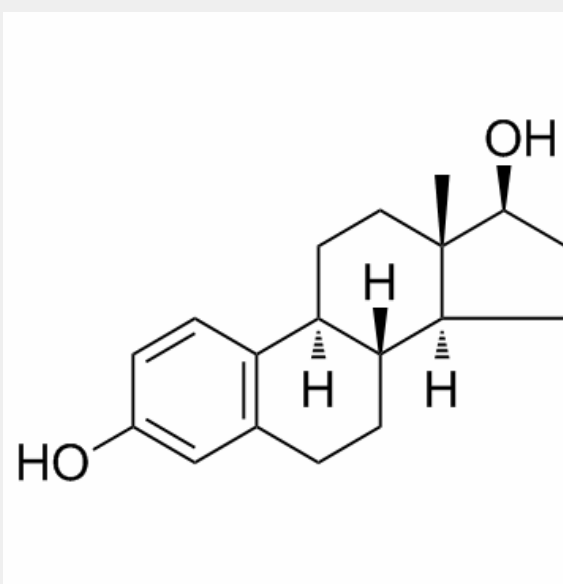
Product Description

Estradiol is a human sex hormone and steroid, and the primary female sex hormone.

In Vitro: Estradiol causes new dendritic spines and synapses in hippocampal CA1 pyramidal cells. Estradiol increases NMDA receptor binding by 46% in parallel with dendritic spine and synapse density. Estradiol also elevates sensitivity of CA1 pyramidal cells to NMDA receptor-mediated synaptic input and such an effect is correlated with the estradiol-induced increase in dendritic

spine density in the apical dendritic tree of these cells^[1]. Estradiol reduces Ba²⁺ entry reversibly via Ca²⁺ channels in acutely dissociated and cultured neostriatal neurons. Estradiol also reduces Ba²⁺ currents but is significantly less effective than Estradiol in rat neostriatal neurons^[2]. Estradiol dose-dependently inhibits IL-1-, TNF-, and IL-1 and TNF-induced production of bioassayable IL-6. Estradiol blocks TNF-induced IL-6 production and osteoclast development in primary bone cell cultures derived from neonatal murine calvaria^[3].

In Vivo: Estradiol functions in hippocampal synapse density during the estrous cycle in the adult rat^[4]. Estradiol reverses the ovariectomy-induced decrease in spine density. Estradiol in combination with progesterone enhances spine density for 2 to 6 h but decreases following estradiol alone^[5].



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