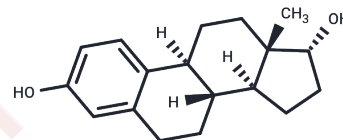


Alpha-Estradiol

Chemical Properties

CAS No. :	57-91-0
Formula:	C ₁₈ H ₂₄ O ₂
Molecular Weight:	272.38
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Alpha-Estradiol (Epiestradiol) is an estrogen that inhibits 5alpha-reductase and has potential in the study of androgenetic alopecia.
Targets(IC50)	Estrogen/progestogen Receptor, Reductase, Endogenous Metabolite, Antibacterial
Kinase Assay	Na ⁺ -Ca ²⁺ exchange activity is determined by assaying Na ⁺ -dependent ⁴⁵ Ca ²⁺ uptake as reported previously. Briefly, the cells are preincubated in Hanks' balanced saline solution (HBSS) for 20 min, and the medium is switched to HBSS containing ⁴⁵ Ca ²⁺ and incubated for 5 min. To increase intracellular Na ⁺ concentration, 1 mM ouabain plus 20 μM monensin (for astrocytes and microglia) and 10 μM monensin (for neurons) are used. Monensin is added simultaneously with the isotope. Ouabain is added 5 min before monensin in astrocytes and microglia. SEA0400 and KB-R7943 are added 5 min before monensin and present during ⁴⁵ Ca ²⁺ uptake reaction.

Solubility Information

Solubility	DMSO: 62.5 mg/mL (229.46 mM), Sonication is recommended. Ethanol: 11.11 mg/mL (40.79 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% Corn oil+90% Salin: 4 mg/mL (14.69 mM), Sonication is recommended. 10% DMSO+40% PEG300+5% Tween-80+45% Saline: 4 mg/mL (14.69 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6713 mL	18.3567 mL	36.7134 mL
5 mM	0.7343 mL	3.6713 mL	7.3427 mL
10 mM	0.3671 mL	1.8357 mL	3.6713 mL
50 mM	0.0734 mL	0.3671 mL	0.7343 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Santos RS, et al. The effects of 17 alpha-estradiol to inhibit inflammation in vitro. *Biol Sex Differ.* 2017 Sep 6;8:30.
- Schriefers H, et al. Inhibition of testosterone metabolism by 17-alpha-estradiol in rat liver slices. *Arzneimittelforschung.* 1991 Nov;41(11):1186-9.
- Zhang HB, et al. 17-Alpha-estradiol ameliorating oxygen-induced retinopathy in a murine model. *Jpn J Ophthalmol.* 2012 Jul;56(4):407-15.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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