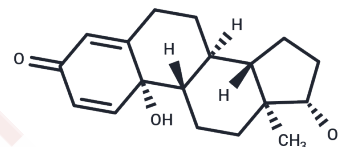


10 $\beta$ ,17 $\beta$ -dihydroxyestra-1,4-dien-3-one

## Chemical Properties

CAS No. :	549-02-0
Formula:	C <sub>18</sub> H <sub>24</sub> O <sub>3</sub>
Molecular Weight:	288.38
Storage:	Store at low temperature 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	10 $\beta$ ,17 $\beta$ -dihydroxyestra-1,4-dien-3-one (DHED) is a brain-selective prodrug of 17 $\beta$ -estradiol, which has neuroprotective effects, improves cognitive dysfunction, and can be used to study brain damage.
Targets(IC50)	Estrogen Receptor/ERR
In vivo	The effect of 10 $\beta$ ,17 $\beta$ -dihydroxyestra-1,4-dien-3-one (DHED) on PR expression has also been evaluated on animals. PR expression in brains taken from morphine-treated rats manifested the same response to 10 $\beta$ ,17 $\beta$ -dihydroxyestra-1,4-dien-3-one or EE as in OVX rats not treated with morphine. These animals were treated with the test compounds (10 $\beta$ ,17 $\beta$ -dihydroxyestra-1,4-dien-3-one 30 and 100 $\mu$ g/kg, EE 200 $\mu$ g/kg, and vehicle) via oral gavage twice per day. As indicated by optical density on film exposures, that induction of the highly estrogen-responsive gene was three fold higher in the 10 $\beta$ ,17 $\beta$ -dihydroxyestra-1,4-dien-3-one - and EE-treated groups than in the vehicle-treated animals.

## Solubility Information

Solubility	DMSO: 80 mg/mL (277.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (11.44 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

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	1mg	5mg	10mg
1 mM	3.4676 mL	17.3382 mL	34.6765 mL
5 mM	0.6935 mL	3.4676 mL	6.9353 mL
10 mM	0.3468 mL	1.7338 mL	3.4676 mL
50 mM	0.0694 mL	0.3468 mL	0.6935 mL

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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

Merchenthaler I, et al. Treatment with an orally bioavailable prodrug of 17 $\beta$ -estradiol alleviates hot flashes without hormonal effects in the periphery. Sci Rep. 2016 Aug 1;6:30721.

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