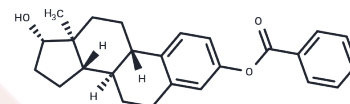


Estradiol benzoate

Chemical Properties

CAS No. :	50-50-0
Formula:	C ₂₅ H ₂₈ O ₃
Molecular Weight:	376.49
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Estradiol benzoate (Benzhormovarine) is the synthetic benzoate ester of estradiol, a steroid sex hormone vital to the maintenance of fertility and secondary sexual characteristics in females.
Targets(IC50)	Estrogen Receptor/ERR,Bcl-2 Family,Estrogen/progestogen Receptor,HBV
In vitro	Estradiol benzoate is a synthetic ester, specifically the 3-benzoyl ester, of the natural estrogen, estradiol. Estrogens direct the development of the female genotype in embryogenesis and at puberty. Estradiol is the major estrogen secreted by the premenopausal ovary. Estradiol benzoate is an estradiol analog which contains a benzyl ester at the C-3 position and is often used in combination with a progestin to induce estrus in domestic livestock. This compound binds to the human and murine estrogen receptor α (ER α), and chicken ER with IC ₅₀ values in the range of 22-28 nM. This reflects a 6-10 fold reduction in binding affinity compared to estradiol. [1]

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 62.5 mg/mL (166.01 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: < 6.25 mg/mL (16.6 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn oil: 6.25 mg/mL (16.6 mM),Solution. 10% DMSO+90% (20% SBE- β -CD in Saline): < 6.25 mg/mL (16.6 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: < 6.25 mg/mL (16.6 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. <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	2.6561 mL	13.2806 mL	26.5611 mL
5 mM	0.5312 mL	2.6561 mL	5.3122 mL
10 mM	0.2656 mL	1.3281 mL	2.6561 mL
50 mM	0.0531 mL	0.2656 mL	0.5312 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

Matthews J, et al. J Steroid Biochem Mol Biol, 2000, 74(4), 223-234.

Wang, Zixiang, et al. EVI1 overexpression promotes ovarian cancer progression by regulating estrogen signaling. Molecular and Cellular Endocrinology. (2021): 111367.

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