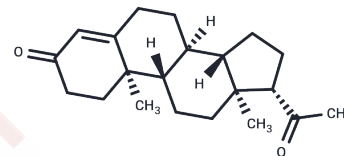


Progesterone

Chemical Properties

CAS No. :	57-83-0
Formula:	C ₂₁ H ₃₀ O ₂
Molecular Weight:	314.46
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Progesterone is a steroid hormone that regulates the menstrual cycle and is essential for pregnancy. It is also commonly used to induce melasma models.
Targets(IC50)	Estrogen/progestogen Receptor, Opioid Receptor, Endogenous Metabolite, Progesterone Receptor
In vitro	Progesterone drives a series of events in which luminal cells may furnish basal cells with Wnt4 and RANKL signals, which in turn respond by upregulating homologous receptors, transcriptional targets, and markers of the cell cycle. Progesterone exhibits a biphasic effect on the proliferation of breast cancer cells; it stimulates growth during the initial cell cycle and subsequently impedes cell progression at the G1/S phase.
In vivo	Twenty-one days after dorsal medial thalamic nuclei damage, rats treated with progesterone exhibited reduced neuronal degeneration. In female 3xTg-AD mice, progesterone negated the advantageous effects against Abeta accumulation, yet it did not affect behavioral performance. During the Morris water maze spatial navigation task, progesterone-treated rats demonstrated less impairment compared to control rats.

Solubility Information

Solubility	Ethanol: 31.5 mg/mL (100.17 mM), Sonication is recommended. Methanol: < 1 mg/mL (insoluble) DMSO: 47.48 mg/mL (150.99 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.36 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	3.1801 mL	15.9003 mL	31.8005 mL
5 mM	0.636 mL	3.1801 mL	6.3601 mL
10 mM	0.318 mL	1.590 mL	3.1801 mL
50 mM	0.0636 mL	0.318 mL	0.636 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.

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