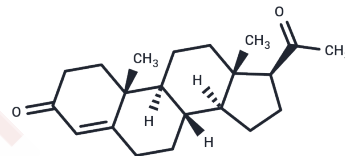


Progesterone

Chemical Properties

CAS No. :	57-83-0
Formula:	C ₂₁ H ₃₀ O ₂
Molecular Weight:	314.46
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Progesterone (Pregn-4-ene-3,20-dione) is the major progestational steroid that is secreted primarily by the CORPUS LUTEUM and the PLACENTA. Progesterone acts on the UTERUS, the MAMMARY GLANDS and the BRAIN. It is required in EMBRYO IMPLANTATION; PREGNANCY maintenance, and the development of mammary tissue for MILK production.
Targets(IC50)	Estrogen/progestogen Receptor, Opioid Receptor, Endogenous Metabolite, Progesterone Receptor
In vitro	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.
In vivo	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.

Solubility Information

Solubility	Ethanol: 31.5 mg/mL (100.17 mM), Sonication is recommended. Methanol: 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)
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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.

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