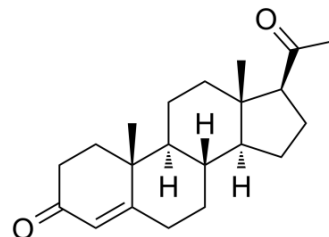


## Progesterone

Cat. No.:	HY-N0437		
CAS No.:	57-83-0		
Molecular Formula:	C <sub>21</sub> H <sub>30</sub> O <sub>2</sub>		
Molecular Weight:	314.46		
Target:	Progesterone Receptor; Endogenous Metabolite		
Pathway:	Others; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 25 mg/mL (79.50 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.1801 mL	15.9003 mL	31.8005 mL
	5 mM	0.6360 mL	3.1801 mL	6.3601 mL
	10 mM	0.3180 mL	1.5900 mL	3.1801 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.08 mg/mL (6.61 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.08 mg/mL (6.61 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.08 mg/mL (6.61 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Progesterone is a steroid hormone that regulates the menstrual cycle and is crucial for pregnancy.

#### IC<sub>50</sub> & Target

Human Endogenous Metabolite

#### In Vivo

Progesterone (Injections; 1 mg; three consecutive daily) stimulates vessel maturation in the mouse endometrium<sup>[4]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult female mice (7-13 wk, 18-28 g) <sup>[4]</sup>
Dosage:	1 mg
Administration:	Injections; three consecutive daily
Result:	Stimulated vessel maturation in the mouse endometrium.

## CUSTOMER VALIDATION

- Hum Reprod. 2019 May 1;34(5):804-812.
- Eur J Med Chem. 2019 Mar 22;171:265-281.
- J Neurosci Methods. 2018 Sep 1;307:240-247.
- Patent. US20200129476A1
- Patent. US20200078369A1

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Schindler AE, et al. Classification and pharmacology of progestins. *Maturitas*. 2003 Dec 10;46 Suppl 1:S7-S16.
- [2]. Zava DT, et al. Estrogen and progestin bioactivity of foods, herbs, and spices. *Proc Soc Exp Biol Med*. 1998 Mar;217(3):369-78.
- [3]. Komesaroff PA, et al. Effects of wild yam extract on menopausal symptoms, lipids and sex hormones in healthy menopausal women. *Climacteric*. 2001 Jun;4(2):144-50.
- [4]. Girling JE, et al. Progesterone, but not estrogen, stimulates vessel maturation in the mouse endometrium. *Endocrinology*. 2007 Nov;148(11):5433-41. Epub 2007 Aug 9.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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