

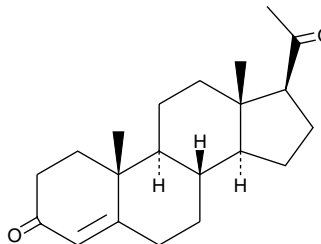
Product Information



Progesterone

Item No. 15876

CAS Registry No.: 57-83-0
Formal Name: pregn-4-ene-3,20-dione
Synonyms: Crinone[®], Cyclogest, Endometrin[®], NSC 9704, NSC 64377, Utrogestan[®]
MF: C₂₁H₃₀O₂
FW: 314.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 239 nm



Laboratory Procedures

For long term storage, we suggest that progesterone be stored as supplied at -20°C. It should be stable for at least two years.

Progesterone is supplied as a crystalline solid. A stock solution may be made by dissolving the progesterone in the solvent of choice. Progesterone is soluble in organic solvents such as acetonitrile, ethanol, and methanol, which should be purged with an inert gas. The solubility of progesterone in these solvents is approximately 1 mg/ml.

Progesterone is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Progesterone, along with pregnenolone, is the biosynthetic precursor of all other steroid hormones. Progesterone is synthesized from cholesterol by the sequential action of desmolase in the mitochondria, which produces pregnenolone, followed by Δ^{4,5}-isomerase in the outer mitochondrial membrane and smooth endoplasmic reticulum of steroid-secreting cells.¹ Progesterone activates the human progesterone receptor with an EC₅₀ value of 0.5 nM.²

References

1. Erickson, G.F. The ovary: Basic principles and concepts. A. Physiology, Chapter 17, in *Endocrinology and Metabolism*. Felig, P., Baxter, J.D., and Frohman, L.A., editors, 3rd ed., McGraw-Hill, Inc. Health Professions Division, New York, 973-1015 (1995).
2. Pedram, B., van Oeveren, A., Mais, D.E., *et al.* A tissue-selective nonsteroidal progesterone receptor modulator: 7,9-Difluoro-5-(3-methylcyclohex-2-enyl)-2,2,4-trimethyl-1,2-dihydrochromeno[3,4-f]quinoline. *J. Med. Chem.* **51**(13), 3696-3699 (2008).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/15876

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery**.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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