

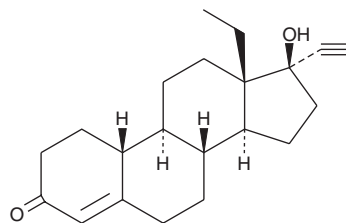
Product Information



Levonorgestrel

Catalog No. 10006318

CAS Registry No.: 797-63-7
Formal Name: 13-ethyl-17 α -hydroxy-18,19-dinorpregn-4-en-20-yn-3-one
Synonym: Norplant
MF: C₂₁H₂₈O₂
FW: 312.5
Purity: \geq 95%
Stability: \geq 2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

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

Levonorgestrel is supplied as a crystalline solid. A stock solution may be made by dissolving the levonorgestrel in an organic solvent purged with an inert gas. Levonorgestrel is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of levonorgestrel in these solvents is 0.2 mg/ml in ethanol and 5 mg/ml in DMSO and DMF.

Levonorgestrel is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, levonorgestrel should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Levonorgestrel has a solubility of 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Progesterone is a steroid secreted by the corpus luteum and placenta. It is responsible for preparing the uterine lining for implantation of a fertilized ovum and to maintain pregnancy. Levonorgestrel is a synthetic progesterone analog (i.e., a progestin) and the biologically active component of norgestrel, which is a racemic mixture. Levonorgestrel prevents pregnancy by inhibiting ovulation and by causing the cervical mucous to thicken, which makes it harder for sperm to move toward the uterus. Levonorgestrel exhibits approximately three-times higher binding affinity than progesterone for the progesterone receptor.¹ A dose of approximately 60 μ g is sufficient to prevent ovulation and a therapeutic dose of 0.15-0.5 mg is used in hormone replacement therapy, which is about 1,000-times lower than the progesterone dose.¹

Reference

1. Stanczyk, F.Z. All progestins are not created equal. *Steroids* **68**, 879-890 (2003).

Related Products

Estradiol EIA Kit - Cat. No. 582251 • Progesterone EIA Kit - Cat. No. 582601 • Estradiol - Cat. No. 10006315 • Levonorgestrel - Cat. No. 10006318 • Norgestrel - Cat. No. 10006319 • Tibolone - Cat. No. 10006321 • Estriol - Cat. No. 10006484 • Ethinyl Estradiol - Cat. No. 10006486 • Estradiol Benzoate - Cat. No. 10006487 • Gestrinone - Cat. No. 10006488

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

MATERIAL 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 Material Safety Data Sheet, which has been sent via email to your institution.

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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.

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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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