

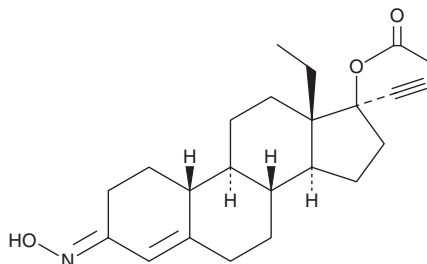
PRODUCT INFORMATION



Norgestimate

Item No. 16547

CAS Registry No.: 35189-28-7
Formal Name: (17 α)-17-(acetyloxy)-13-ethyl-18,19-dinorpregn-4-en-20-yn-3-one 3-oxime
Synonyms: Dexnorgestrel acetate, ORF 10131, RWJ 10131
MF: C₂₃H₃₁NO₃
FW: 369.5
Purity: \geq 95%
UV/Vis.: λ_{max} : 241 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Norgestimate is supplied as a crystalline solid. A stock solution may be made by dissolving the norgestimate in the solvent of choice, which should be purged with an inert gas. Norgestimate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of norgestimate in these solvents is approximately 2, 14, and 16 mg/ml, respectively.

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

Description

Norgestimate is a progestin and a prodrug form of norelgestromin and levonorgestrel (Item No. 10006318).^{1,2} It binds to progestin receptors (mean IC₅₀ = 3.48 nM for rabbit uterine receptors) and is selective for progestin over androgen receptors (mean IC₅₀ = 764 nM for rat prostatic receptors) in radioligand binding assays.³ Norgestimate maintains pregnancy in ovariectomized female rats in a dose-dependent manner.¹ It inhibits ovulation in 100% of female rats when administered at a dose of 0.5 mg/kg. Norgestimate (2 mg/kg) completely inhibits estrone-induced vaginal cornification in ovariectomized female rats, indicating antiestrogenic activity. Formulations containing norgestimate in combination with ethinyl estradiol have been used as oral contraceptives and in the treatment of acne vulgaris.

References

1. Hahn, D.W., Allen, G.O., and McGuire, J.L. The pharmacological profile of norgestimate, a new orally active progestin. *Contraception* **16(5)**, 541-553 (1977).
2. Stanczyk, F.Z. All progestins are not created equal. *Steroids* **68(10-13)**, 879-890 (2003).
3. Phillips, A., Demarest, K., Hahn, D.W., et al. Progestational and androgenic receptor binding affinities and in vivo activities of norgestimate and other progestins. *Contraception* **41(4)**, 399-410 (1990).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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