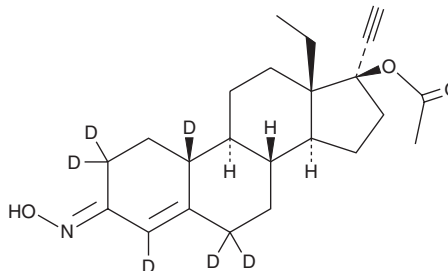


PRODUCT INFORMATION



Norgestimate-d₆ Item No. 31176

CAS Registry No.: 1263194-12-2
Formal Name: (17 α)-17-(acetyloxy)-13-ethyl-18,19-dinorpregn-4-en-20-yn-3-one-2,2,4,6,6,10-d₆, 3-oxime
Synonym: Dxnorgestrel acetime-d₆
MF: C₂₃H₂₅D₆NO₃
FW: 375.5
Chemical Purity: $\geq 95\%$ (mixture of isomers) (Norgestimate)
Deuterium Incorporation: $\geq 99\%$ deuterated forms (d₁-d₆); $\leq 1\%$ d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

Norgestimate-d₆ is intended for use as an internal standard for the quantification of norgestimate (Item No. 16547) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Norgestimate-d₆ is supplied as a solid. A stock solution may be made by dissolving the norgestimate-d₆ in the solvent of choice, which should be purged with an inert gas. Norgestimate-d₆ is soluble in the organic solvent methanol.

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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