

## Product Data Sheet

Product Name: Norgestimate-d6

Cat. No.: GC47797

### Chemical Properties

Cas. No. 1263194-12-2

SMILES CC[C@@]12[C@](CC[C@@]2(OC(C)=O)C#C)([H])[C@]3([H])CC([2H])([2H])C4=C([2H])/C(C([2H])([2H])C[C@]4([2H])[C@@]3([H])CC1)=N/O

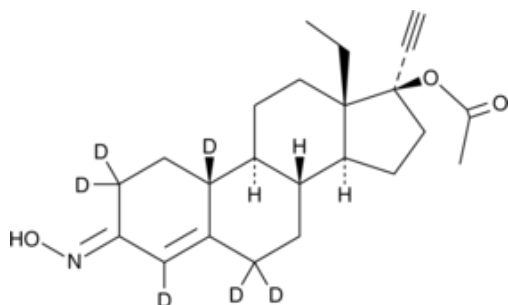
Formula C<sub>23</sub>H<sub>25</sub>D<sub>6</sub>NO<sub>3</sub> M.Wt 375.5

Solubility Methanol: soluble Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



### Background

Norgestimate-d<sub>6</sub> is intended for use as an internal standard for the quantification of norgestimate by GC- or LC-MS. Norgestimate is a progestin and a prodrug form of norelgestromin and levonorgestrel.<sup>1,2</sup> It binds to progestin receptors (mean IC<sub>50</sub> = 3.48 nM for rabbit uterine receptors) and is selective for progestin over androgen receptors (mean IC<sub>50</sub> = 764 nM for rat prostatic receptors) in radioligand binding assays.<sup>3</sup> Norgestimate maintains pregnancy in ovariectomized female rats in a dose-dependent manner.<sup>1</sup> 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

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combination with ethinyl estradiol have been used as oral contraceptives and in the treatment of acne vulgaris.

1.Hahn, D.W., Allen, G.O., and McGuire, J.L.The pharmacological profile of norgestimate, a new orally active progestinContraception16(5)541-553(1977) 2.Stanczyk, F.Z.All progestins are not created equalSteroids68(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 progestinsContraception41(4)399-410(1990)

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