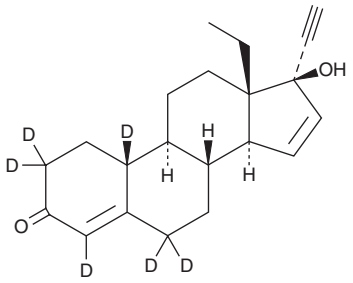
PRODUCT INFORMATION

Gestodene-d_6

Item No. 33819

CAS Registry No.:	1542211-40-4
Formal Name:	13-ethyl-17α-hydroxy-18,19-dinorpregna-4,15-dien-20-yn-3-one-2,2,4,6,6,10-d_6
MF:	$C_{21}H_{20}D_6O_2$
FW:	316.5
Chemical Purity:	≥98% (Gestodene)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_6); ≤1% d_0
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

Gestodene-d_6 is intended for use as an internal standard for the quantification of gestodene (Item No. 18217) 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).

Gestodene-d_6 is supplied as a solid. A stock solution may be made by dissolving the gestodene-d_6 in the solvent of choice, which should be purged with an inert gas. Gestodene-d_6 is soluble in methanol.

Description

Gestodene is a progestin.[1] It selectively binds to the progesterone receptor over the estrogen receptor.[2] Gestodene induces transcriptional activity mediated by the progesterone receptor, and, weakly, the androgen receptor in reporter assays.[3] It increases the growth of MCF-7 cells when used at concentrations ranging from 0.1 to 1 µM.[4] In contrast, gestodene (0.1 mg/kg) reduces tumor growth in an estrogen-dependent model of rat mammary tumors induced by DMBA (Item No. 30383). Formulations containing gestodene, in combination with ethynyl estradiol have been used as oral contraceptives.

References

1. Stanczyk, F.Z. All progestins are not created equal. *Steroids* **68(10-13)**, 879-890 (2003).
2. Pollow, K., Juchem, M., Grill, H.J., *et al.* Lack of binding of gestodene to estrogen receptor in human breast cancer tissue. *Eur. J. Cancer* **26(5)**, 608-610 (1990).
3. Fuhrmann, U., Slater, E.P., and Fritzemeier, K.H. Characterization of the novel progestin gestodene by receptor binding studies and transactivation assays. *Contraception* **51(1)**, 45-52 (1995).
4. Kloosterboer, H.J., Schoonen, W.G., Deckers, G.H.J., *et al.* Effects of progestagens and Org OD14 in *in vitro* and *in vivo* tumor models. *J. Steroid Biochem. Mol. Biol.* **49(4-6)**, 311-318 (1994).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM