

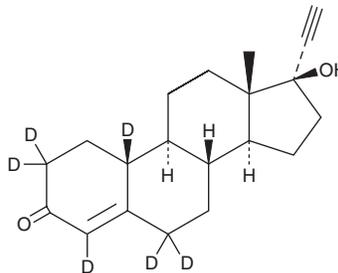
# PRODUCT INFORMATION



## Norethindrone-d<sub>6</sub>

Item No. 33277

**CAS Registry No.:** 2376036-05-2  
**Formal Name:** 17 $\alpha$ -hydroxy-19-norpregn-4-en-20-yn-3-one-2,2,4,6,6,10-d<sub>6</sub>  
**Synonym:** Norethisterone-d<sub>6</sub>  
**MF:** C<sub>20</sub>H<sub>20</sub>D<sub>6</sub>O<sub>2</sub>  
**FW:** 304.5  
**Chemical Purity:**  $\geq$ 95% (Norethindrone)  
**Deuterium Incorporation:**  $\geq$ 99% deuterated forms (d<sub>1</sub>-d<sub>6</sub>);  $\leq$ 1% d<sub>0</sub>  
**Supplied as:** A 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

Norethindrone-d<sub>6</sub> is intended for use as an internal standard for the quantification of norethindrone (Item No. 20941) 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).

Norethindrone-d<sub>6</sub> is supplied as a solid. A stock solution may be made by dissolving the norethindrone-d<sub>6</sub> in the solvent of choice, which should be purged with an inert gas. Norethindrone-d<sub>6</sub> is slightly soluble in chloroform and methanol.

### Description

Norethindrone is a synthetic progestin.<sup>1</sup> *In vivo*, norethindrone (0.5 mg/animal per day) inhibits the estrous cycle in female mice. It induces tumor progression and metastasis in a BT474 breast cancer mouse xenograft model.<sup>2</sup> Formulations containing norethindrone have been used as oral contraceptives.

### References

1. Bruce, H.M. Preliminary note on the effect of 19-norethisterone on mating behavior and fertility in the mouse. *Proc. Soc. Study Fertility* **10**, 158-165 (1958).
2. Liang, Y., Benakanakere, I., Besch-Williford, C., *et al.* Synthetic progestins induce growth and metastasis of BT-474 human breast cancer xenografts in nude mice. *Menopause* **17(5)**, 1040-1047 (2010).

#### 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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