# PRODUCT INFORMATION

## 11-keto Testosterone-$d_3$

*Item No. 9002754*

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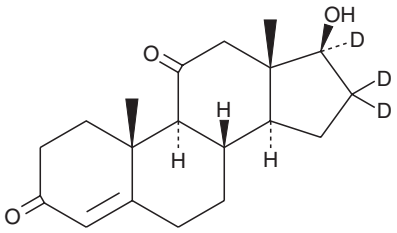
|---|---|
| **Formal Name:** | 17β-hydroxy-androst-4-ene-3,11-dione-$d_3$ |
| **MF:** | $C_{19}H_{23}D_3O_3$ |
| **FW:** | 305.4 |
| **Chemical Purity:** | ≥98% 11-keto Testosterone |
| **Deuterium Incorporation:** | ≥99% deuterated forms ($d_1$-$d_3$); ≤1% $d_0$ |
| **UV/Vis.:** | $\lambda_{max}$: 237 nm |
| **Supplied as:** | A crystalline solid |
| **Storage:** | -20°C |
| **Stability:** | As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly |




## Description

11-keto Testosterone-$d_3$ (Item No. 9002754) is intended for use as an internal standard for the quantification of 11-keto testosterone (CRM) (Item No. 9002564) 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).

11-keto Testosterone is structurally categorized as an androgen. It is a significant hormone in certain fish, regulating the development of sexual development and behavior.[1,2] 11-keto Testosterone binds the stickleback kidney androgen receptor ($EC_{50}$ = 43 nM).[3] 11-keto Testosterone, at 10 nM, significantly activates the human androgen receptor expressed in zebrafish liver cells.[3] This product is intended for research and forensic applications.

## References


1. Yamaguchi, T., Watanuki, H., and Sakai, M. Effects of estradiol, progesterone and testosterone on the function of carp, *Cyprinus Carpio*, phagocytes *in vitro*. *Comp. Biochem. Physiol.* **129C(1)**, 49-55 (2001).
2. Godwin, J. Neuroendocrinology of sexual plasticity in teleost fishes. *Front. Neuroendocrinol.* **31(2)**, 203-216 (2010).
3. Olsson, P.-E., Berg, A.H., von Hofsten, J., *et al*. Molecular cloning and characterization of a nuclear androgen receptor activated by 11-ketotestosterone. *Reprod. Biol. Endocrinol.* **3:37**, (2005).





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