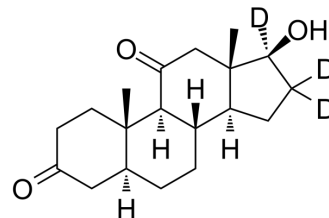


11-Ketodihydrotestosterone-d3

Cat. No.:	HY-135794S
CAS No.:	2479914-02-6
Molecular Formula:	C ₁₉ H ₂₅ D ₃ O ₃
Molecular Weight:	307.44
Target:	Androgen Receptor
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	11-Ketodihydrotestosterone-d3 (11-KDHT-d3) is the deuterium labeled 11-Ketodihydrotestosterone. 11-Ketodihydrotestosterone (11-KDHT; 5 α -Dihydro-11-keto testosterone) is an endogenous steroid and a metabolite of 11 β -Hydroxyandrostenedione. 11-Ketodihydrotestosterone is an active androgen and is also a potent androgen receptor (AR) agonist with a K _i of 20.4 nM and an EC ₅₀ of 1.35 nM for human AR. 11-Ketodihydrotestosterone drives gene regulation, protein expression and cell growth in androgen-dependent prostate cancer cells ^{[1][2]} .
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Pretorius E, et al. 1-Ketotestosterone and 11-Ketodihydrotestosterone in Castration Resistant Prostate Cancer: Potent Androgens Which Can No Longer Be Ignored. *PLoS One.* 2016 Jul 21;11(7):e0159867.
- [3]. du Toit T, et al. Profiling adrenal 11 β -hydroxyandrostenedione metabolites in prostate cancer cells, tissue and plasma: UPC2-MS/MS quantification of 11 β -hydroxytestosterone, 11keto-testosterone and 11keto-dihydrotestosterone. *J Steroid Biochem Mol Biol.* 2017 Feb;166:54-67.

Caution: Product has not been fully validated for medical applications. For research use only.

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