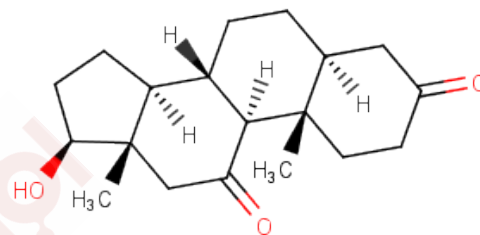


11-Ketodihydrotestosterone

Chemical Properties

CAS No. : 32694-37-4
 Formula: C₁₉H₂₈O₃
 Molecular Weight: 304.42
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	11-Ketodihydrotestosterone is a metabolite of 11 β -Hydroxyandrostenedione. It is an active androgen and is also a potent androgen receptor (AR) agonist (K _i : 20.4 nM, EC ₅₀ : 1.35 nM for human AR).
Targets(IC ₅₀)	Others, Androgen Receptor
In vitro	11-Ketodihydrotestosterone (11-KDHT; 1-10 nM; 24 hours; LNCaP and VCaP cells) treatment induces significant cell proliferation. 11-KDHT (0.1-10 nM; 7-10 days; LNCaP and VCaP cells) treatment results in the significant upregulation of KLK3, TMPRSS2 and FKBP5 in both LNCaP and VCaP cells, with the exception of KLK3 at 1 nM in LNCaP cells [1]. In PNT2 cells, only 20% of 11 β -hydroxyandrostenedione (11OHA4) and 11 β -hydroxytestosterone (11OHT) are metabolized with the former yielding 11keto-androstenedione (11KA4), 11-KDHT and 11 β -hydroxy-5 α -androstenedione (11OH-5 α DIONE) and the latter yielding 11OHA4, 11KT and 11-Ketodihydrotestosterone with downstream products <0.03 μ M. In prostate cancer tissue, C11-oxy C19 metabolites at significantly higher levels than the C19 steroids are detected, with unconjugated 11-Ketodihydrotestosterone, 11KT and 11OHA4 levels ranging between 13 and 37.5 ng/g. Analyses of total steroid levels in plasma show significant levels of 11OHA4 (\approx 230-440 nM), 11KT (\approx 250-390 nM) and 11-Ketodihydrotestosterone (\approx 19 nM)[2].
Cell Research	Cell Line: LNCaP and VCaP cells. Concentration: 0.1 nM, 1 nM or 10 nM. Incubation Time: 7 days (LNCaP cells) or 10 days (VCaP cells) [1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2849 mL	16.4247 mL	32.8494 mL
5 mM	0.657 mL	3.2849 mL	6.5699 mL
10 mM	0.3285 mL	1.6425 mL	3.2849 mL
50 mM	0.0657 mL	0.3285 mL	0.657 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.

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.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481