

Product Data Sheet

Product Name: Cyproterone Acetate

Cat. No.: GC13971

Chemical Properties

Cas. No. 427-51-0

Chemical Name (1aR,5aR,5bS,8R,8aS,10aS,10bS,10cS)-8-acetyl-4-chloro-8a,10b-dimethyl-2-oxo-1,1a,2,5a,5b,6,7,8,8a,9,10,10a,10b,10c-tetradecahydrocyclopenta[a]cyclopropa[g]phenanthren-8-yl acetate

SMILES C1C1=C([H])C(C(C([H])([H])C2([H])([H])([H])C(C2(C(C([H])([H])([H])=O)OC(C([H])([H])([H])=O)(C([H])([H])([H])C([H])([H])C3([H])([H])([H])C3([H])C(C1=C([H])C4=O)(C([H])([H])([H])C5([H])C4([H])C5([H])[H])

Formula C₂₄H₂₉ClO₄

M.Wt 416.94

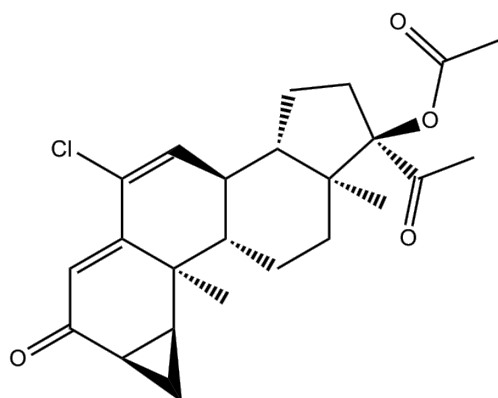
Solubility ≥ 14.7mg/mL in DMSO

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Cyproterone acetate is an androgen receptor (AR) antagonist with IC₅₀ of 7.1 nM, as well as a weak progesterone receptor agonist with weak pro-gestational and glucocorticoid activity. Target: Androgen Receptor. Cyproterone acetate clearly shows antagonistic properties, while being a partial

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agonist also, showing agonism for the AR, with EC₅₀ of 4.0 μ M, at relatively high concentrations [1]. In the presence of 10 nM Testosterone, low concentrations of Cyproterone acetate inhibits T-stimulated transcription of 3XHRE-LUC, but at higher concentrations, transcription is stimulated. LH levels in Cyproterone acetate-treated rats do not dip below pretreatment levels, although they does not increase as much in the rats treated with 3.2 mg Cyproterone acetate/kg/day as in those which received 0.2 mg Cyproterone acetate/kg/day [2]. Cyproterone acetate exhibits direct negative effect on reproductive organs weight and significant reducing effect on sperm count and Ca²⁺ contents. SOD and GST activities significantly decrease in addition to significant increase in NO, MDA contents reflecting the oxidative status of testis in Cyproterone acetate treated rats [3].

References:

- [1]. Sonneveld, E., et al., Development of androgen- and estrogen-responsive bioassays, members of a panel of human cell line-based highly selective steroid-responsive bioassays. Toxicol Sci, 2005. 83(1): p. 136-48.
- [2]. Attardi, B.J., S. Koduri, and S.A. Hild, Relative progestational and androgenic activity of four progestins used for male hormonal contraception assessed in vitro in relation to their ability to suppress LH secretion in the castrate male rat. Mol Cell Endocrinol, 2010. 328(1-2): p. 16-21.
- [3]. Arafa, N.M., Efficacy of echinacea on the action of cyproterone acetate in male rats. Pak J Biol Sci, 2010. 13(20): p. 966-76.

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