Data Sheet (Cat.No.T1167)

TargetMol

Cyproterone acetate

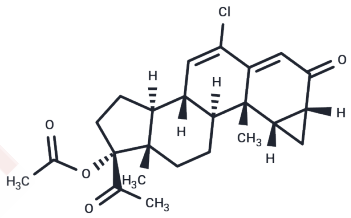
Chemical Properties

CAS No. : 427-51-0

Formula: C24H29ClO4

Molecular Weight: 416.94

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	Cyproterone acetate (Cyproterone 17-O-acetate) binds the androgen receptor (AR), thereby preventing androgen-induced receptor activation in target tissues and inhibiting the growth of testosterone-sensitive tumor cells. Cyproterone acetate is the acetate salt of a synthetic steroidal antiandrogen with weak progestational and antineoplastic activities. This agent also exerts progestational agonist properties at the level of the pituitary that reduce luteinizing hormone (LH), resulting in reductions in testicular androgen secretion and serum testosterone levels. Treatment with cyproterone alone results in incomplete suppression of serum testosterone levels. Cyproterone binds the androgen receptor (AR), thereby preventing androgen-induced receptor activation in target tissues and inhibiting the growth of testosterone-sensitive tumor cells. Cyproterone Acetate is the acetate salt of a synthetic steroidal antiandrogen with weak progestational and antineoplastic activities. This agent also exerts progestational agonist properties at the level of the pituitary that reduce luteinizing hormone (LH), resulting in reductions in testicular androgen secretion and serum testosterone levels. Treatment with cyproterone alone results in incomplete suppression of serum testosterone levels.
Targets(IC50)	Androgen Receptor
In vitro	Cyproterone acetate inhibited T-stimulated 3XHRE-LUC transcription at low concentrations in the presence of testosterone (10 nM), but not at high concentrations. Cyproterone acetate has both pronounced antagonistic and partial activator properties, and activates the AR at high relative concentrations (EC50 of 4.0 μM). In J774 macrophages
In vivo	Cyproterone acetate inhibited T-stimulated 3XHRE-LUC transcription at low concentrations in the presence of testosterone (10 nM), but not at high concentrations. Cyproterone acetate has both pronounced antagonistic and partial activator properties, and activates the AR at high relative concentrations (EC50 of 4.0 μM). In J774 macrophages

Solubility Information

Solubility	Ethanol: 10 mg/mL (23.98 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 35.71 mg/mL (85.65 mM),Sonication is recommended.

Solubility	(< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.8 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3984 mL	11.9921 mL	23.9843 mL
5 mM	0.4797 mL	2.3984 mL	4.7969 mL
10 mM	0.2398 mL	1.1992 mL	2.3984 mL
50 mM	0.048 mL	0.2398 mL	0.4797 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

Sonneveld E, et al. Toxicol Sci. 2005, 83(1), 136-148.
Attardi BJ, et al. Mol Cell Endocrinol. 2010, 328(1-2), 16-21.
Arafa NM. Pak J Biol Sci. 2010, 13(20), 966-976.
Santiago-Moreno J, et al. J Endocrinol. 2012.
Aleem M, et al. Contraception. 2005, 71(5), 379-391.