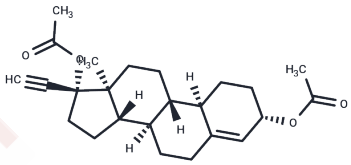
Data Sheet (Cat.No.T0996)

TargetMol

Ethynodiol diacetate

Chemical Properties



CAS No. : 297-76-7

Formula: C24H32O4

Molecular Weight: 384.51

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Ethynodiol diacetate (Ethynodiol acetate) is a synthetic progestational hormone utilized alone or combined with estrogens as an oral contraceptive.
Targets(IC50)	Estrogen/progestogen Receptor,Progesterone Receptor
In vitro	Daily administration of 75 μg of Norgestrel combined with 150 μg of Ethynodiol diacetate and 7.5 μg of Ethinyl estradiol can downregulate plasma concentrations of high-density lipoprotein cholesterol in cynomolgus monkeys. Additionally, a dosage of 6 mg/kg of Ethynodiol diacetate significantly elevates the levels of 3alpha-hydroxy-5alpha-pregnan-20-one and A-homo-3-oxa-5alpha-pregnane-4,20-dione in the urine of female rats, and markedly increases the weight of the rat's pituitary, liver, and kidneys.
In vivo	In the presence of an S9 mix, treatment with NDGA inhibits the genotoxic damage induced by Ethynodiol diacetate, which may be attributed to the suppression of cytochrome P450s that prevent the metabolic activation of Ethynodiol diacetate, or due to NDGA's radical scavenging properties. Concurrently, 150 μg/mL Ethynodiol diacetate increases the rate of sister chromatid exchanges and the frequency of chromosomal aberrations in human lymphocytes, and inhibits lymphocyte proliferation. Notably, < 1.5 μM NDGA can reduce the rate of sister chromatid exchanges in human lymphocytes treated with 150 μg/mL Ethynodiol diacetate.

Solubility Information

Solubility	DMSO: 40 mg/mL (104.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6007 mL	13.0036 mL	26.0071 mL
5 mM	0.5201 mL	2.6007 mL	5.2014 mL
10 mM	0.2601 mL	1.3004 mL	2.6007 mL
50 mM	0.052 mL	0.2601 mL	0.5201 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.

Reference

Siddique YH, et al. J Environ Biol, 2007, 28(2), 279-282.
Zeng X, Zhu S, Lu W, et al. Target identification among known drugs by deep learning from heterogeneous networks. Chemical Science. 2020, 11(7): 1775-1797.
Siddique YH, et al. Current Science, 2004, 86(8), 1161-1165.
Simic B, et al. Endocr Regul, 1998, 32(3), 125-131.
Clarkson TB, et al. Obstet Gynecol, 1990, 75(2), 217-222.
Zeng X, Zhu S, Lu W, et al. Target identification among known drugs by deep learning from heterogeneous networks[J]. Chemical Science. 2020, 11(7): 1775-1797.