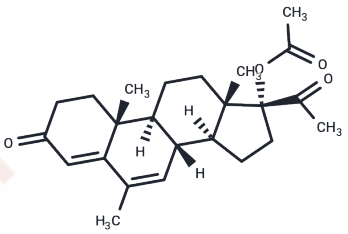
Data Sheet (Cat.No.T1284)

TargetMol

Megestrol acetate

Chemical Properties



CAS No. : 595-33-5

Formula: C24H32O4

Molecular Weight: 384.51

Storage: Keep away from moisture,Keep away from direct sunlight
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	Megestrol acetate (BDH1298) is a progestogen with actions and uses similar to those of the progestogens in general. Megestrol acetate also has anti-androgenic properties. It is given by mouth in the palliative treatment or as an adjunct to other therapy in endometrial carcinoma and in breast cancer. Megestrol acetate has been approved to treat anorexia and cachexia.
Targets(IC50)	Glucocorticoid Receptor,Estrogen/progestogen Receptor,HIV Protease,Autophagy, Progesterone Receptor
In vitro	Megestrol acetate inhibits the expression of cytoplasmic aromatase through nuclear C/EBPβ in reperfusion injury-induced ischemic rat hippocampus. [1] Megestrol acetate significantly increases the proliferation, migration, and adipogenic differentiation of adipose-derived stem cells (ASCs) in a dose-dependent manner. Megestrol acetate also upregulates genes downstream of glucocorticoid receptor (GR) in ASCs. [2]
In vivo	Megestrol acetate significantly decreases the circulating concentrations of estradiol (E2) and testosterone (T) in female fish or 11-ketotestosterone (11-KT) in male fish. Megestrol acetate exposure significantly downregulates the transcription of certain genes along the hypothalamic-pituitary-gonadal (HPG) axis. [3] Megestrol acetate produces a progressive deterioration in glucose tolerance, with a significant increase in mean fasting plasma glucose concentrations and decrease in mean plasma glucose clearance rates after 6 months and 12 months of treatment in cats. Megestrol acetate also produces a progressive decrease in both resting plasma cortisol concentrations and cortisol concentrations after ACTH stimulation in cats. [4] Megestrol acetate (50 mg/kg/day) for 9 days significantly increases food and water intake compared with untreated controls. Megestrol acetate (50 mg/kg/day) significantly (90-140%) increases in neuropeptide Y concentrations in the arcuate nucleus (where neuropeptide Y is synthesized), in the lateral hypothalamic area (through which arcuate neurones project) and in the medial preoptic area, ventromedial nucleus and dorsomedial nucleus in rats. [5]

Solubility Information

Solubility	Ethanol: 7.7 mg/mL (20.03 mM),Sonication is recommended. DMSO: 10 mg/mL (26.01 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.6 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	2.6007 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.

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

Kelicen Ugur P, et al. Eur J Pharmacol, 2011, 654(3), 217-225.
Sung JH, et al. Stem Cells Transl Med. 2015 Jul;4(7):789-99.
Han J, et al. Aquat Toxicol,2014, 150, 66-72.
Peterson ME, et al. Res Vet Sci,1987, 42(3), 354-357.
McCarthy HD, et al. Eur J Pharmacol,1994, 265(1-2), 99-102.