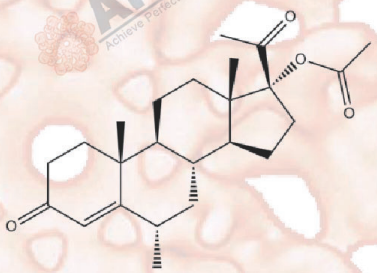
Product Data Sheet

Medroxyprogesterone acetate



Cat. No.:	B1510
CAS No.:	71-58-9
Formula:	C24H34O4
M.Wt:	386.52
Synonyms:	
Target:	Endocrinology and Hormones
Pathway:	Estrogen/progestogen Receptor
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾2.21 mg/mL in EtOH with ultrasonic; ⩾9.48 mg/mL in DMSO with gentle warming

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.5872 mL	12.9359 mL	25.8719 mL
5 mM	0.5174 mL	2.5872 mL	5.1744 mL
10 mM	0.2587 mL	1.2936 mL	2.5872 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Steroidal progestin
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	M-1 cells
Preparation method:	The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	1 nM ~ 1 μM; 24 hrs

	Applications:	In M-1 cells, Medroxyprogesterone Acetate at the dose of 1 μM increased α-epithelial Na channel (α-ENaC) and serum and glucocorticoid-regulated kinase 1 (sgk1) expression. Medroxyprogesterone Acetate dose-dependently increased α-ENaC expression with the earliest effect seen at 10 nM. In Medroxyprogesterone Acetate-treated M-1 cells, α-ENaC-driven luciferase activity could not be inhibited by Org31710, which indicated that Medroxyprogesterone Acetate regulated α-ENaC in a progesterone receptor (PR)-independent manner.
In Vivo	**Animal experiment**	
	Animal models:	Rats
	Dosage form:	14 and 21 mg/2 mL; given via osmotic pumps
	Applications:	In aged ovariectomized rats, Medroxyprogesterone acetate impaired delayed memory retention on the water radial-arm maze, and exacerbated overnight forgetting on the Morris maze. Medroxyprogesterone acetate significantly decreased the level of glutamic acid decarboxylase (GAD) in the hippocampus, and increased GAD level in the entorhinal cortex.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Thomas CP, Liu KZ, Vats HS. Medroxyprogesterone acetate binds the glucocorticoid receptor to stimulate alpha-ENaC and sgk1 expression in renal collecting duct epithelia. Am J Physiol Renal Physiol. 2006 Feb;290(2):F306-12. Epub 2005 Sep 27.

[2]. Braden BB, Talboom JS, Crain ID, Simard AR, Lukas RJ, Prokai L, Scheldrup MR, Bowman BL, Bimonte-Nelson HA. Medroxyprogesterone acetate impairs memory and alters the GABAergic system in aged surgically menopausal rats. Neurobiol Learn Mem. 2010 Mar;93(3):444-53.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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