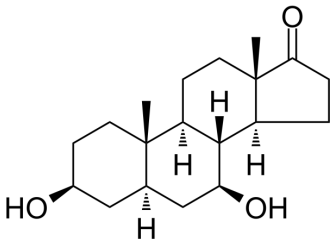
7β-Hydroxy-epi-androsterone

Cat. No.:	HY-107043
CAS No.:	25848-69-5
Molecular Formula:	$C_{19}H_{30}O_3$
Molecular Weight:	306.44
Target:	Estrogen Receptor/ERR
Pathway:	Vitamin D Related/Nuclear Receptor
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

7β-Hydroxy-epi-androsterone (7β-Hydroxy-EpiA) can bind to ERβ and has anti-inflammatory and neuroprotective properties. 7β-Hydroxy-epi-androsterone is an endogenous androgenic derivative of dehydroepiandrosterone[1][2][3].

IC_{50} & Target

ERβ

In Vitro

7β-Hydroxy-epi-androsterone (1, 10 and 100 nM, 72 h) inhibits MCF-7 and MDA-MB-231 cell proliferation in the presence of E2 (10 nM)[2].

7β-Hydroxy-epi-androsterone (1, 10 and 100 nM, 48 h) leads to a G0/G1 cell cycle arrest in MCF-7 and MDA-MB-231 cells[2].

7β-Hydroxy-epi-androsterone (1, 10 and 100 nM, 48 h) increases cell apoptosis in the presence of E2 (10 nM) in MCF-7 cells[2].

7β-Hydroxy-epi-androsterone (1, 10 and 100 nM, 24 h) binds to ERβ and decreases in transactivation in MDA-MB-231 cells[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Apoptosis Analysis[2]

Cell Line:	MCF-7 cells
Concentration:	1, 10 and 100 nM (in presence of 10 nM E2)
Incubation Time:	48 h
Result:	Increased cell apoptosis in presence of E2.

In Vivo

7β-Hydroxy-epi-androsterone (i.p., once a day for 7 days) displays anti-inflammatory effects in rat with DSS-induced colitis[3].

7β-Hydroxy-epi-androsterone (0.1 mg/kg s.c., b.i.d. for 10 days) shows protective effect against inflammatory neurodegeneration and glial cell death in Alzheimer's disease rats[4].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rat with DSS-induced colitis[3]
Dosage:	0.01, 0.1 and 1 mg/kg
Administration:	Intraperitoneal injection (i.p.), once a day for 7 days.

Result:	Increased in COX-2 and PGE synthase expression. Increased colonic tissue levels of 15d-PGJ2 levels.

REFERENCES

[1]. Christophe Ricco, et al. Synthesis of 7β-hydroxy-epiandrosterone. Steroids. Volume 76, Issues 1-2, January 2011, Pages 28-30.

[2]. Sandra N, et al. The DHEA metabolite 7β-hydroxy-epiandrosterone exerts anti-estrogenic effects on breast cancer cell lines. Steroids. 2012 Apr;77(5):542-51.

[3]. Hennebert O, et al. Anti-inflammatory effects and changes in prostaglandin patterns induced by 7beta-hydroxy-epiandrosterone in rats with colitis. J Steroid Biochem Mol Biol. 2008 Jun;110(3-5):255-62.

[4]. Dudas B, et al. Protection against inflammatory neurodegeneration and glial cell death by 7beta-hydroxy epiandrosterone, a novel neurosteroid. Neurobiol Dis. 2004 Mar;15(2):262-8.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA