Enclomiphene hydrochloride

Cat. No.: HY-118861B

CAS No.: 14158-65-7

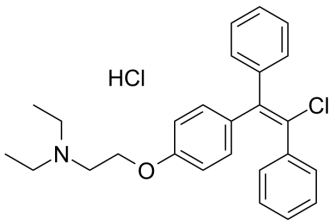
Molecular Formula: $C_{26}H_{29}Cl_2NO$

Molecular Weight: 442.42

Target: Estrogen Receptor/ERR

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Enclomiphene ((E)-Clomiphene) hydrochloride is a potent and orally active non-steroidal estrogen receptor antagonist, with antioestrogenic property. Enclomiphene hydrochloride can be used for the research of ovarian dysfunction, testosterone deficiency, male hypogonadism and type 2 diabetes[1].

In Vitro

Enclomiphene hydrochloride (0-100 μM, 6 h) dose-dependently inhibits basal and gonadotrophin-stimulated small and large ovine luteal cell progesterone secretion[2].

Enclomiphene hydrochloride (0-100 μg/mL, 24 h) dose-dependently inhibits fertilization rates, blastocyst formation rates, and degeneration rates in mouse oocytes[3].

Enclomiphene hydrochloride (1 nM-10 μM, 6 h) dose-dependently decreases E2-induced inhibition of follicle stimulating hormone (FSH) secretion in primary sheep pituitary cells[4].

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

In Vivo

Enclomiphene hydrochloride (subcutaneous injection, 0.25 and 0.5 mg/animal, daily) inhibits spermatogenesis and decreases serum luteinizing hormone (LH) and testosterone levels in intact or castrated rats[5].

Enclomiphene hydrochloride (oral adminstration, 0.03-3 mg/kg, daily for 90 days) reductes body weight to sham levels, and reduced serum cholesterol[6].

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

Animal Model:	21 days-old Charles River male rats[5]
Dosage:	0.25 and 0.5 mg/animal, daily for 24 days.
Administration:	Subcutaneous injection
Result:	Decreased LH and testosterone levels in the serum.

Animal Model:	OVX (ovariectomy) rat model[6]
Dosage:	0.03, 1, and 3 mg/kg, daily for 90 days.
Administration:	Oral adminstration
Result:	Reducted body weight to sham levels, and reduced serum cholesterol.

	Showed dose-dependent effects on the proximal tibia with BMD and BMC approaching posttreatment Sham levels.

CUSTOMER VALIDATION

- Viruses. 2021 Jun 28;13(7):1255.

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REFERENCES

[1]. Rodriguez KM, et al. Enclomiphene citrate for the treatment of secondary male hypogonadism. Expert Opin Pharmacother. 2016 Aug;17(11):1561-7.

[2]. M S Opsahl, et al. Effects of enclomiphene and zuclomiphene on basal and gonadotrophin-stimulated progesterone secretion by isolated subpopulations of small and large ovine luteal cells. Hum Reprod. 1996 Jun;11(6):1250-5.

[3]. G E Schmidt, et al. The effects of enclomiphene and zuclomiphene citrates on mouse embryos fertilized in vitro and in vivo. Am J Obstet Gynecol. 1986 Apr;154(4):727-36.

[4]. E S Huang, et al. Estrogenic and antiestrogenic effects of enclomiphene and zuclomiphene on gonadotropin secretion by ovine pituitary cells in culture. Endocrinology. 1983 Feb;112(2):442-8.

[5]. R Weissenberg, et al. The effect of clomiphene citrate and its Zu or En isomers on the reproductive system of the immature male rat. Andrologia. 1992 May-Jun;24(3):161-5.

[6]. R T Turner, et al. Differential responses of estrogen target tissues in rats including bone to clomiphene, enclomiphene, and zuclomiphene. Endocrinology. 1998 Sep;139(9):3712-20.

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