Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Fadrozole hydrochloride

Catalog No: tcsc0002958

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
102676-31-3

Formula:
$C_{14}H_{14}ClN_3$

Pathway:
Others

Target:
Aromatase

Purity / Grade:
>98%

Solubility:
H2O : 100 mg/mL (385.02 mM; Need ultrasonic); DMSO : 100 mg/mL (385.02 mM; Need ultrasonic and warming)

Alternative Names:
CGS 16949A

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Observed Molecular Weight:
259.73

Product Description

Fadrozole hydrochloride is a potent, selective and nonsteroidal inhibitor of **aromatase** with an **IC_{50}** of 6.4 nM.

IC50 & Target: IC50: 6.4 nM (aromatase)[1]

In Vitro: Fadrozole hydrochloride is a potent, selective and nonsteroidal inhibitor of aromatase with an IC_{50} of 6.4 nM. In hamster ovarian slices, Fadrozole hydrochloride inhibits the production of estrogen with an IC_{50} of 0.03 μM. The production of progesterone is inhibited with an IC_{50} of 120 μM. Synthesis of other cytochrome P-450 dependent steroids can be suppressed to various degrees with higher doses of Fadrozole hydrochloride[1].

In Vivo: Fadrozole hydrochloride is able to inhibit the aromatase-mediated androstenedione-induced uterine hypertrophy in immature female rats with an ED_{50} of 0.03 mg/kg when given orally. In the same model, aminoglutethimide elicits the same effect with an ED_{50} of 30 mg/kg when given orally[1]. Fadrozole hydrochloride prevents the development of both benign and malignant spontaneus mammary neoplasns in female Sprague-Dawley rats. It also slows the spontaneous development of ptuitary pars distalis adenomas in female rats, and reduces the incidence of spontaneous hepatocellular tumours in male and female rats[2]. Administration of Fadrozole hydrochloride in male and female mice suppresses the production of 17b-estradiol, accompanied with a 70% reduction in parasite burden. This protective effect is associated in male mice with a recovery of the specific cellular immune response. Interleukin-6 (IL-6) serum levels, and its production by splenocytes, is augmented by 80%, together with a 10-fold increase in its expression in testes of infected male mice. Fadrozole hydrochloride treatment returns these levels to baseline values[3].