

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

Observed Molecular Weight:

259.73

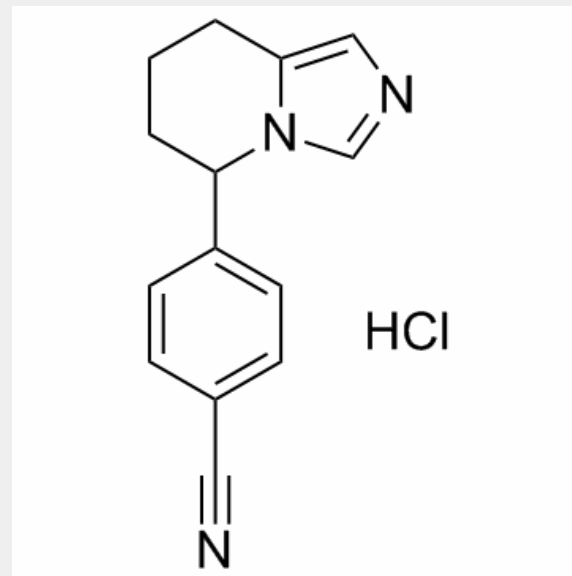
Product Description

Fadrozole hydrochloride is a potent, selective and nonsteroidal inhibitor of **aromatase** with an **IC₅₀** 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 IC₅₀ of 6.4 nM. In hamster ovarian slices, Fadrozole hydrochloride inhibits the production of estrogen with an IC₅₀ of 0.03 μM. The production of progesterone is inhibited with an IC₅₀ 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 ED₅₀ of 0.03 mg/kg when given orally. In the same model, aminoglutethimide elicits the same effect with an ED₅₀ of 30 mg/kg when given orally^[1]. Fadrozole hydrochloride prevents the development of both benign and malignant spontaneous mammary neoplasms in female Sprague-Dawley rats. It also slows the spontaneous development of pituitary 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 17β-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].



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