

Letrozole

Catalog No: tcsc1776



Available Sizes

Size: 100mg

Size: 200mg

Size: 500mg



Specifications

CAS No:

112809-51-5

Formula:

$C_{17}H_{11}N_5$

Pathway:

Autophagy;Others

Target:

Autophagy;Aromatase

Purity / Grade:

>98%

Solubility:

DMSO : 50 mg/mL (175.25 mM; Need ultrasonic)

Alternative Names:

CGS 20267

Observed Molecular Weight:

285.3

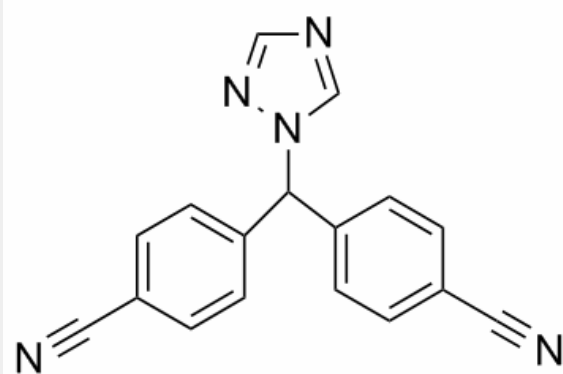
Product Description

Letrozole(CGS-20267) is an oral non-steroidal aromatase inhibitor that has been introduced for the adjuvant.

Target: Aromatase

InVitro: Letrozole potently inhibits aromatase derived from a variety of different sources including human placental microsomes, particulate fractions of human breast cancer, rat ovarian microsomes, MCF-7 cells transfected with aromatase (MCF-7Ca), JEG-3 human choriocarcinoma cells, CHO cells, hamster ovarian tissue, and particulate fractions of human breast cancer with IC₅₀ of 11, 2, 7, 0.07, 0.07, 1.4, 20 and 0.8 nM. In the non-cellular systems, the IC₅₀ of letrozole is calculated to be 1-13 nM [1]. Letrozole maximally inhibits estradiol production in vitro in LH-stimulated hamster ovarian tissue at 0.1 μM with an IC₅₀ of 0.02 μM and does not significantly affect progesterone production up to 350 μM. In ACTH-stimulated rat adrenal tissue in vitro, aldosterone production is inhibited by with an IC₅₀ of 210 μM [2].

InVivo: Letrozole inhibits aromatase in vivo with ED₅₀ of 1-3 μg/kg p.o. [2]. Letrozole displays anti-endocrine effects. Letrozole inhibits androstenedione-induced uterine hypertrophy in immature rats with ED₅₀ of 1-3 μg/kg. In the adult female rat, Letrozole (0.3-1 mg/kg daily p.o., 14 days) completely interrupts ovarian cyclicity and reduces uterine weight and serum estradiol (E₂) concentrations to a similar extent to that seen after ovariectomy [1]. Letrozole induces dose-dependent regression of estrogen-dependent, 9,10-dimethylbenz-a-anthracene (DMBA)-induced mammary tumors in adult female rats. The ED₅₀ for Letrozole is determined to be 10 - 30μg/kg/day, with complete inhibition at a daily dose of 10μg /day [3]. Letrozole produces dose-dependent inhibition of tumor growth of MCF-7 cells transfected with human aromatase gene (MCF-7Ca) implanted athymic nude mice, with complete inhibition at 20 mg/kg per day p.o.[4].



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