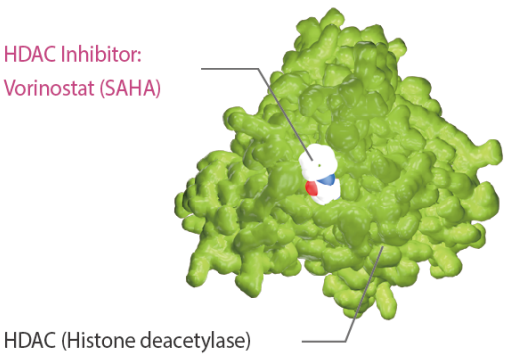
Aromatase



Aromatase (also known as CYP19) is a member of the general class of cytochrome P450 enzymes. It catalyzes the conversion of androgens to estrogens, which is a crucial step in the biosynthesis of estrogens in the human body.

Aromatase enzyme is expressed in ovarian granulosa cells, placental syncytiotrophoblast, adipose tissue, brain, and skin fibroblasts. The primary sources of aromatase are ovarian granulosa cells in premenopausal women and adipose cells in postmenopausal women. Aromatase inhibitors suppress oestrogen synthesis in the ovaries and in peripheral tissues, starting from the next day after dosing. They work by inhibiting the action of aromatase, which converts androgens into oestrogens (testosterone into estradiol and androstenedione into oestrone). There are three generations of aromatase inhibitors (AIs). Aminoglutethimide is a first-generation aromatase inhibitor. The second-generation inhibitors include Fadrozole and Formestane. Anastrozole, Letrozole, and Exemestane are third-generation inhibitors.

Aromatase is encoded by the cyp19a1 gene, belongs to a particular reticulum-bound cytochrome P450 superfamily and forms an electron-transfer complex with its partner, NADPH-cytochrome P450 reductase (CPR).

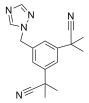
Aromatase Inhibitors & Modulators

Anastrozole
(ZD1033)

Cat. No.: HY-14274

Bioactivity: Anastrozole is a potent, highly selective **aromatase** inhibitor, which inhibits human placental aromatase with an **IC_{50}** of 15 nM.

Purity: 99.93%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
10 mg, 50 mg, 100 mg, 200 mg, 500 mg

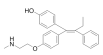


Endoxifen

Cat. No.: HY-18719E

Bioactivity: Endoxifen is a key active metabolite of tamoxifen (TAM) with higher affinity and specificity to **estrogen receptor** that also inhibits aromatase activity.

Purity: >98%
Clinical Data: No Development Reported
Size: 10 mg, 50 mg, 100 mg

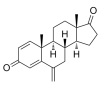


Exemestane
(FCE 24304; EXE)

Cat. No.: HY-13632

Bioactivity: Exemestane(FCE 24304) is an aromatase inhibitor, inhibits human placental and rat ovarian aromatase with IC50 of 30 nM and 40 nM, respectively.

Purity: 97.77%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
10 mg, 50 mg, 100 mg

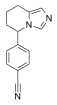


Fadrozole

Cat. No.: HY-14247A

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

Purity: 99.78%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 25 mg, 50 mg, 100 mg

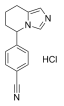


Fadrozole hydrochloride
(CGS 16949A)

Cat. No.: HY-14247

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

Purity: 99.64%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO,
5 mg, 10 mg, 25 mg, 50 mg, 100 mg

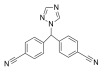


Letrozole
(CGS 20267)

Cat. No.: HY-14248

Bioactivity: Letrozole is an **aromatase** inhibitor with an **IC_{50}** of 1-13 nM.

Purity: 99.91%
Clinical Data: Launched
Size: 10mM x 1mL in DMSO,
100 mg, 200 mg, 500 mg



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