

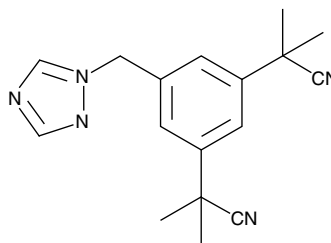
Product Information



Anastrozole

Item No. 11987

CAS Registry No.: 120511-73-1
Formal Name: $\alpha^1, \alpha^1, \alpha^3, \alpha^3$ -tetramethyl-5-(1H-1,2,4-triazol-1-ylmethyl)-1,3-benzenediacetonitrile
Synonyms: Anastrozol, Arimidex™, ICI-D 1033, ZD 1033
MF: $C_{17}H_{19}N_5$
FW: 293.4
Purity: $\geq 98\%$
Stability: ≥ 2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that anastrozole be stored as supplied at -20°C . It should be stable for at least two years. Anastrozole is supplied as a crystalline solid. A stock solution may be made by dissolving the anastrozole in the solvent of choice. Anastrozole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of anastrozole in these solvents is approximately 20, 13, and 14 mg/ml, respectively.

Anastrozole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, anastrozole should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Anastrozole has a solubility of approximately 0.1 mg/ml in a 1:9 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Anastrozole is a third generation aromatase inhibitor that has been shown to effectively eliminate the conversion of androgens to estrogens in peripheral tissues.^{1,2} It inhibits human placental aromatase *in vitro* with an IC_{50} value of 15 nM and at doses 100–200 times its maximally effective aromatase inhibitory dose, does not interfere with the biosynthesis of other steroids, including cholesterol, cortisol, and aldosterone.³ Marketed under the trade name Arimidex™, anastrozole has been used to treat estrogen receptor-positive breast cancers in post-menopausal women.²

References

1. Burnett, A.F., Bahador, A., and Amezcua, C. Anastrozole, an aromatase inhibitor, and medroxyprogesterone acetate therapy in premenopausal obese women with endometrial cancer: A report of two cases successfully treated without hysterectomy. *Gynecol. Oncol.* **94**, 832-834 (2004).
2. Smith, I.E. and Dowsett, M. Aromatase inhibitors in breast cancer. *N. Engl. J. Med.* **348**, 2431-2442 (2003).
3. Grimm, S.W. and Dyroff, M.C. Inhibition of human drug metabolizing cytochromes P450 by anastrozole, a potent and selective inhibitor of aromatase. *Drug Metab. Dispos.* **25**(5), 598-602 (1997).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/11987

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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