

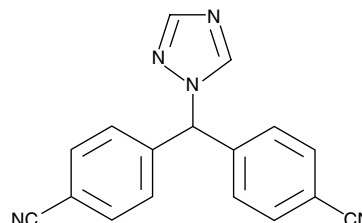
# Product Information



## Letrozole

Item No. 11568

**CAS Registry No.:** 112809-51-5  
**Formal Name:** 4,4'-(1H-1,2,4-triazol-1-yl)methylene)  
*bis*-benzonitrile  
**Synonyms:** CGS 20267, Femara  
**MF:** C<sub>17</sub>H<sub>11</sub>N<sub>5</sub>  
**FW:** 285.3  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 239, 273 nm



### Laboratory Procedures

For long term storage, we suggest that letrozole be stored as supplied at -20°C. It should be stable for at least two years.

Letrozole is supplied as a crystalline solid. A stock solution may be made by dissolving the letrozole in the solvent of choice. Letrozole is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of letrozole in these solvents is approximately 16 mg/ml.

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

Aromatase is a cytochrome P450 family member (designated CYP19) which catalyzes the conversion of androgens to estrogens.<sup>1</sup> It may also be called estrogen synthase or estrogen synthetase. Letrozole is a potent, cell-permeable inhibitor of aromatase (IC<sub>50</sub> = 2 nM).<sup>2</sup> Formulations containing letrozole are prescribed for the treatment of postmenopausal breast cancer.<sup>3</sup>

### References

1. Buzdar, A.U., Robertson, J.F.R., Eiermann, W., *et al.* An overview of the pharmacology and pharmacokinetics of the newer generation aromatase inhibitors anastrozole, letrozole, and exemestane. *Cancer* **95**(9), 2006-2016 (2002).
2. Mayhoub, A.S., Marler, L., Kondratyuk, T.P., *et al.* Optimization of the aromatase inhibitory activities of pyridylthiazole analogues of resveratrol. *Bioorg. Med. Chem.* **20**(7), 2427-2434 (2012).
3. Cohen, M.H., Johnson, J.R., Li, N., *et al.* Approval summary: Letrozole in the treatment of postmenopausal women with advanced breast cancer. *Clin. Cancer Res.* **8**(3), 665-669 (2002).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/11568](http://www.caymanchem.com/catalog/11568)

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

#### 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 Safety Data Sheet, which has been sent via email to your institution.

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