



Product Specification Sheet

Product Name: Letrozole

Catalog Number: C5387

Technical information:

Chemical Formula: $C_{17}H_{11}N_5$

CAS #: 112809-51-6

Molecular Weight: 285.3

Purity: > 98%

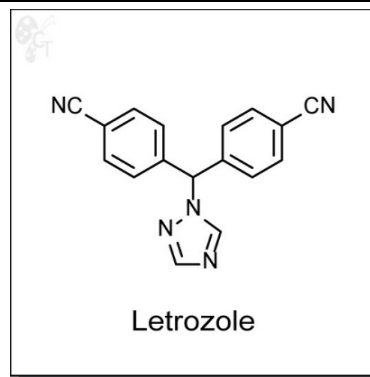
Appearance: white solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 4,4'-((1H-1,2,4-triazol-1-yl)methylene)dibenzonitrile

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.351mL of DMSO for each mg of Letrozole.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Letrozole is an orally-available, triazole-based inhibitor of the aromatase enzyme complex at an IC50 range of 1-13 nM. It is known to be a Cytochrome P450 inhibitor as well as an estrogen antagonist and has shown promise in the treatment of breast cancer in postmenopausal women. (1, 2)

Letrozole was also found to be a potent in vitro inhibitor of cell proliferation and of type IV collagenases expressed by ER-positive MCF-7 cells. Treatment of MCF-7 cells with 10 nM letrozole led to significant inhibition of MMP levels. Furthermore, concurrent treatment with 17- β -estradiol greatly suppressed estradiol-induced stimulation of MMP levels. (3)

- Reference:**
1. Haynes et al., The pharmacology of letrozole. *J. Steroid Biochem. Mol. Biol.* 2003, 87, 35-45. Pubmed ID: 14630089
 2. Dellapasqua et al., Letrozole. *Expert Opin. Drug Metab. Toxicol.* 2010, 6(2), 251-259. Pubmed ID: 20095792
 3. Mitropoulou et al., Letrozole as a potent inhibitor of cell proliferation and expression of metalloproteinases (mmp-2 and mmp-9) by human epithelial breast cancer cells. *Int. J. Cancer*, 2003, 104, 155-160. Pubmed ID: 12569569

To reorder: <http://www.cellagentech.com/Letrozole/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.