

Product Name: Letrozole

Catalog No.: 4382

Batch No.: 1

CAS Number: 112809-51-5

IUPAC Name: 4,4'-(1*H*-1,2,4-Triazol-1-ylmethylene)bisbenzonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₇H₁₁N₅·¼H₂O

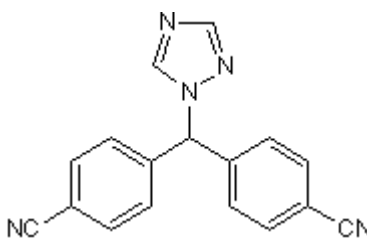
Batch Molecular Weight: 289.8

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	70.46	4	24.16
Found	70.61	3.77	24.16

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent, reversible non-steroidal aromatase inhibitor (IC₅₀ = 11.5 nM). Displays antitumor effects in several animal models. Suppresses the endogenous aromatase-induced proliferation of MCF-7 cells.

Physical and Chemical Properties:

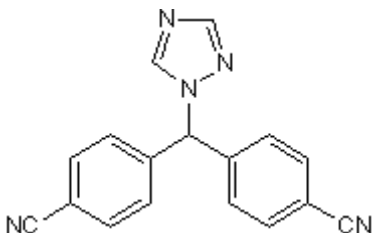
Batch Molecular Formula: C₁₇H₁₁N₅·¼H₂O

Batch Molecular Weight: 289.8

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Bhatnagar et al (1990) Highly selective inhibition of estrogen biosynthesis by CGS 20267, a new non-steroidal aromatase inhibitor. *J.Steroid Biochem.Mol.Biol.* **37** 1021. PMID: 2149502.

Mitropoulou et al (2003) 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* **104** 155. PMID: 12569569.

Bhatnagar (2007) The discovery and mechanism of action of letrozole. *Breast Cancer Res.Treat.* **105** 7. PMID: 17912633.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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