

# Certificate of Analysis

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**Product Name:** Cetrorelix acetate

**Catalog No.:** 8821

**Batch No.:** 1

CAS Number: 145672-81-7

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>70</sub>H<sub>92</sub>ClN<sub>17</sub>O<sub>14</sub>  
**Batch Molecular Weight:** 1431.06  
**Physical Appearance:** White lyophilised solid  
**Counter Ion:** Acetate  
**Solubility:** Soluble to 1 mg/ml in 0.02 M acetic acid  
**Storage:** Store at -20°C  
**Peptide Sequence:** Ac-D-2-Nal-4-Cl-D-Phe-D-3-Pal-Ser-Tyr-D-Cit-Leu-Arg-Pro-D-Ala-NH<sub>2</sub>

## 2. ANALYTICAL DATA

**HPLC:** Shows 99.9% purity  
**Mass Spectrum:** Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala	1.00	1.00	Lys		
Arg	1.00	Not Detected	Met		
Asx			Phe		
Cys			Pro	1.00	1.03
Glx			Ser	1.00	0.99
Gly			Thr		
His			Trp		
Ile			Tyr	1.00	1.00
Leu	1.00	0.99	Val		

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

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**Product Name:** Cetrorelix acetate**Catalog No.:** 8821**Batch No.:** 1

CAS Number: 145672-81-7

**Description:**

Cetrorelix acetate is a potent gonadotropin-releasing hormone (GnRH) receptor antagonist ( $K_D = 0.202$  nM,  $IC_{50} = 1.21$  nM). Suppresses production of luteinizing hormone (LH) and follicle-stimulating hormone (FSH) from the pituitary gland, which inhibits ovulation. Exhibits antiproliferative effects and displays efficacy against hormone-sensitive cancers in vivo. Also exhibits anxiolytic and antidepressant activity in vivo.

**Physical and Chemical Properties:**Batch Molecular Formula:  $C_{70}H_{92}ClN_{17}O_{14}$ 

Batch Molecular Weight: 1431.06

Physical Appearance: White lyophilised solid

**Peptide Sequence:**Ac-D-2-Nal-4-CI-D-Phe-D-3-Pal-Ser-Tyr-D-Cit-  
Leu-Arg-Pro-D-Ala-NH<sub>2</sub>**Storage:** Store at -20°C**Solubility & Usage Info:**

Soluble to 1 mg/ml in 0.02 M acetic acid

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Counter Ion:** Acetate**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).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Telegdy *et al*** (2009) Effects of the LHRH antagonist cetro. on the brain function in mice. *Neuropeptides* **43** 229. PMID: 19375162.

**Gründker and Emons** (2003) Role of gonadotropin-releasing hormone (GnRH) in ovarian cancer. *Reprod.Biol.Endocrinol.* **1** 65. PMID: 14594454.

**Beckers *et al*** (1997) Characterization of gonadotropin-releasing hormone analogs based on a sensitive cellular luciferase reporter gene assay. *Anal.Biochem.* **251** 17. PMID: 9300077.

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