

Certificate of Analysis

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Product Name: Leuprolide

Catalog No.: 2873

Batch No.: 3

CAS Number: 53714-56-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₅₉ H ₈₄ N ₁₆ O ₁₂
Batch Molecular Weight:	1209.41
Physical Appearance:	White lyophilised solid
Net Peptide Content:	85%
Counter Ion:	Acetate
Solubility:	Soluble to 0.50 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	Glp-His-Trp-Ser-Tyr-D-Leu-Leu-Arg-Pro-NH ₂

2. ANALYTICAL DATA

HPLC:	Shows 96.5% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys		
Arg	1.00	0.99	Met		
Asx			Phe		
Cys			Pro	1.00	0.98
Glx	1.00	0.98	Ser	1.00	1.00
Gly			Thr		
His	1.00	1.07	Trp		
Ile			Tyr	1.00	0.97
Leu	2.00	1.84	Val		

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

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Tel: +1 612 379 2956

Product Name: Leuprolide

Catalog No.: 2873

Batch No.: 3

CAS Number: 53714-56-0

Description:

Gonadotropin-releasing hormone (GnRH, luteinizing hormone-releasing hormone, LHRH) receptor agonist. Suppresses estradiol, LH and FSH serum levels and represses the growth of experimental rat endometriosis.

Physical and Chemical Properties:

Batch Molecular Formula: C₅₉H₈₄N₁₆O₁₂

Batch Molecular Weight: 1209.41

Physical Appearance: White lyophilised solid

Peptide Sequence:

Glp-His-Trp-Ser-Tyr-D-Leu-Leu-Arg-Pro-NHEt

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 0.50 mg/ml in water

This product is supplied as a lyophilized solid and may 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.

Net Peptide Content: 85% (Remaining weight made up of counterions and residual water).

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:

Uday et al (2007) LHRH antagonist attenuates the effect of fluoxetine on marble-burying behavior in mice. *Eur.J.Pharmacol.* **563** 155. PMID: 17368614.

Salvador et al (2001) Effects of the luteinising hormone-releasing hormone (LH-RH) agonist leuprolide on adenylyl cyclase regulation through G-protein coupled receptors in rat ventral prostate. *Eur.J.Pharmacol.* **37** 641.

Okada et al (1988) One-month release injectable microcapsules of a luteinizing hormone-releasing hormone agonist (leuprolide acetate) for treating experimental endometriosis in rats. *J.Pharmacol.Exp.Ther.* **244** 744. PMID: 3126294.

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