

Certificate of Analysis

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Product Name: Oxytocin

Catalog No.: 1910

Batch No.: 16

CAS Number: 50-56-6

EC Number: 200-048-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₄₃ H ₆₆ N ₁₂ O ₁₂ S ₂
Batch Molecular Weight:	1007.19
Physical Appearance:	White lyophilised solid
Net Peptide Content:	87.5%
Counter Ion:	Acetate
Solubility:	Soluble to 1 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	$\overbrace{\text{Cys-Tyr-Ile-Gln-Asn-Cys}}^{\text{}}-\text{Pro-Leu-Gly-NH}_2$

2. ANALYTICAL DATA

HPLC:	Shows 98.3% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys		
Arg			Met		
Asx	1.00	1.02	Phe		
Cys	2.00	1.79	Pro	1.00	1.00
Glx	1.00	1.03	Ser		
Gly	1.00	0.99	Thr		
His			Trp		
Ile	1.00	0.99	Tyr	1.00	0.83
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: Oxytocin**Catalog No.:** 1910**Batch No.:** 16

CAS Number: 50-56-6

EC Number: 200-048-4

Description:

Neurohypophyseal peptide. Stimulates uterine contraction and lactation.

Physical and Chemical Properties:Batch Molecular Formula: C₄₃H₆₆N₁₂O₁₂S₂

Batch Molecular Weight: 1007.19

Physical Appearance: White lyophilised solid

Peptide Sequence:Cys-Tyr-Ile-Gln-Asn-Cys-Pro-Leu-Gly-NH₂**Storage:** Desiccate at -20°C**Solubility & Usage Info:**

Soluble to 1 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: 87.5% (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:

Thibonnier et al (1998) Signal transduction pathways of the human V1-vascular V2-renal, V3-pituitary vasopressin and oxytocin receptors. *Prog.Brain Res.* **119** 147. PMID: 10074787.

Barberis and Tribolle (1996) Vasopressin and oxytocin receptors in the central nervous system. *Crit.Rev.Neurobiol.* **10** 119. PMID: 8853957.

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