

## Certificate of Analysis

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**Product Name:** LEP (116-130) (mouse)

**Catalog No.:** 2985

**Batch No.:** 4

CAS Number: 258276-95-8

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>64</sub>H<sub>109</sub>N<sub>19</sub>O<sub>24</sub>S  
**Batch Molecular Weight:** 1560.73  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 90%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** Ser-Cys-Ser-Leu-Pro-Gln-Thr-Ser-Gly-Leu-Gln-Lys-Pro-Glu-Ser-NH<sub>2</sub>

### 2. ANALYTICAL DATA

**HPLC:** Shows 95.1% purity  
**Mass Spectrum:** Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys	1.00	0.99
Arg			Met		
Asx			Phe		
Cys	1.00	0.17	Pro	2.00	2.09
Glx	3.00	3.02	Ser	4.00	2.56
Gly	1.00	0.97	Thr	1.00	0.85
His			Trp		
Ile			Tyr		
Leu	2.00	1.94	Val		

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**Product Name:** LEP (116-130) (mouse)**Catalog No.:** 2985**Batch No.:** 4

CAS Number: 258276-95-8

**Description:**

Synthetic leptin peptide fragment. Restricts weight gain and reduces food intake in female mice lacking endogenously circulating active leptin.

**Physical and Chemical Properties:**Batch Molecular Formula: C<sub>64</sub>H<sub>109</sub>N<sub>19</sub>O<sub>24</sub>S

Batch Molecular Weight: 1560.73

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Ser-Cys-Ser-Leu-Pro-Gln-Thr-Ser-Gly-Leu-  
Gln-Lys-Pro-Glu-Ser-NH<sub>2</sub>

**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:** 90% (Remaining weight made up of counterions and residual water).**Counter Ion:** TFA**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:**

**Rozhavskaya et al** (2000) Design of a synthetic leptin agonist: effects on energy balance, glucose homeostasis and thermoregulation. *Endocrinology* **141** 2501. PMID: 10875251.

**Grasso et al** (1999) Inhibitory effects of leptin-related synthetic peptide 116-130 on food intake and body weight gain in female C57BL/6J *ob/ob* mice may not be mediated by peptide activation of the long isoform of the leptin receptor. *Diabetes* **48** 2204. PMID: 10535455.

**Grasso et al** (1997) *In vivo* effects of leptin-related synthetic peptides on body weight and food intake in female *ob/ob* mice: localization of leptin activity to domains between amino acid residues 106-140. *Endocrinology* **138** 1413. PMID: 9075696.

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