

# Recombinant Mouse Leptin, PEG

**Cat. No.** Lep-146M    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant Mouse Leptin produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 146 amino acids and an additional Ala at N-terminus. Pegylated Mouse Leptin contains PEG 20 kDa at its N-terminus and having a molecular mass of 35.6 kDa as determined by mass spectrometry. Mouse Leptin was purified by proprietary chromatographic techniques. |
| <b>Species</b>             | Mouse                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>         | A 16-kDa peptide hormone secreted from white adipocytes and implicated in the regulation of food intake and energy balance. Leptin provides the key afferent signal from fat cells in the feedback system that controls body fat stores.                                                                                                                                           |
| <b>Physical Appearance</b> | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>              | Greater than 99.0% as determined by: (a) Analysis by Gel-Filtration. (b) Analysis by SDS-PAGE.                                                                                                                                                                                                                                                                                     |
| <b>Solubility</b>          | It is recommended to reconstitute the lyophilized Leptin in sterile 0.4% NaHCO <sub>3</sub> adjusted to pH-8.5 not less than 100g/ml, which can then be further diluted to other aqueous solutions.                                                                                                                                                                                |
| <b>Biological Activity</b> | Pegylated mouse Leptin is capable of stimulating proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. Pegylated mouse Leptin in                                                                                                                                                                                                            |

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vitro activity is only slightly lower than the non-pegylated antagonist but in vivo it has profound weight reducing effect (as compared to the non-pegylated leptin), resulting mainly from reduced food intake.

**Formulation**

The protein was lyophilized from a concentrated (0.65mg/ml) solution with 0.003mM NaHCO<sub>3</sub>.

**Stability**

Lyophilized Leptin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Leptin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Pathways**

Adipocytokine signaling pathway; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction

## GENE INFORMATION

**Gene Name**

[Lep leptin \[ Mus musculus \]](#)

**Synonyms**

Leptin; ob; obese; Lep

**Gene ID**

[16846](#)

**mRNA Refseq**

[NM\\_008493](#)

**Protein Refseq**

[NP\\_032519](#)

**UniProt ID**

P41160

**Chromosome  
Location**

6 10.5 cM

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**Function**

growth factor activity; hormone activity; protein binding

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