

# **Leptin, rat recombinant (rrLeptin)**

Catalog No: 57274
Lot No: XXXXX
Source: E. coli

**Synonyms:** OB Protein, Obesity Protein, OBS, Obesity factor

# **Background**

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.

# Description

Leptin rat recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16 kDa. Leptin is purified by proprietary chromatographic techniques.

# **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

#### **Formulation**

The protein was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM NaHCO<sub>3</sub>.

# Solubility

It is recommended to reconstitute the lyophilized leptin in sterile 18 M $\Omega$ -cm H $_2$ O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

# 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.

#### **Purity**

Greater than 95.0% as determined by (a) Analysis by SEC-HPLC, (b) Analysis by SDS-PAGE.

# **Amino Acid Sequence**

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Pro-lle-His.

# **Activity**

Biological activity of leptin rat is evidenced by inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor.

# Usage

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