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## **Recombinant Rat Leptin (Anti-Obesity Protein) {rRLeptin (AOBP)}**

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### ◀ **Description:**

Recombinant Rat Leptin produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16,240 Dalton.

The rRLeptin is purified by proprietary chromatographic techniques.

### ◀ **Source:**

**Escherichia Coli.**

### ◀ **Lot Number:** #

### ◀ **Quantity Shipped:**

### ◀ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

### ◀ **Formulation:**

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

### ◀ **Solubility:**

It is recommended to reconstitute the lyophilized rRLeptin in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

### ◀ **Stability:**

Lyophilized rRLeptin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rRLeptin 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 RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

◀ **Amino acid sequence:**

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

◀ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

◀ **Biological Activity:**

rRLeptin is fully biologically active when compared to standards.

The ED<sub>50</sub>, calculated by the leptin-dependant stimulation of Human OB-R transfected murine BaF3 indicator cells is 0.35-0.06 ng/ml.

◀ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of rHuLeptin.

◀ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.201 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of rat Leptin as a Reference Standard.