



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

---

# Certificate of Analysis and Data Sheet

## Recombinant Rat Leptin

**Catalog No.**  
228-11021

**Source:**  
*Escherichia Coli.*

### ***Synonyms***

OB Protein, Obesity Protein, OBS, Obesity factor.

### ***Introduction***

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.  
The Leptin is purified by proprietary chromatographic techniques.

### ***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 Leptin 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 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 RP-HPLC.

(b) Analysis by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

---

### ***Amino acid sequence***

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

### ***Biological 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.

### ***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 Leptin rat as a Reference Standard.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**