



## 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)

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## Certificate of Analysis and Data Sheet

### Leptin Rabbit Recombinant

**Catalog No.**  
IP-1-507P

**Source:**  
E.coli

#### ***Description***

Leptin Rabbit Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 146 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<sup>0</sup>C. Upon reconstitution Leptin should be stored at 4<sup>0</sup>C between 2-7 days and for future use below -18<sup>0</sup>C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

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



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### ***Purity***

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

### ***Biological Activity***

Biological active as 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 0.19 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 calibrated solution of Leptin Rabbit as a Reference Standard.

### ***References***

- 1. Leptin signaling and obesity: cardiovascular consequences. *Circ Res* 2007 Sep 14;101(6):545-59
- 2. Time course and determinants of leptin decline during weight loss in obese boys and girls. *Int J Pediatr Obes* 2007;2(1):2-10
- 3. The effect of infliximab on circulating levels of leptin, adiponectin and resistin in patients with inflammatory bowel disease. *Eur J Gastroenterol Hepatol* 2007 Sep;19(9):789-94
- 4. Effect of fat supplementation on leptin, insulin-like growth factor I, growth hormone, and insulin in cattle. *Can J Vet Res* 2007 Jul;71(3):218-25
- 5. Leptin regulates striatal regions and human eating behavior. *Science* 2007 Sep 7;317(5843):1355
- 6. The association between serum leptin and blood lymphocytes in hemodialysis patients. *Bratisl Lek Listy* 2007;108(3):122-7

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