

California Bioscience

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# **Product Datasheet**

| Product Name | Recombinant Human Leptin                         |
|--------------|--------------------------------------------------|
| Cata No      | CB500130                                         |
| Source       | Escherichia Coli.                                |
| Synonyms     | OB Protein, Obesity Protein, OBS, Obesity factor |

# Description

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.

Leptin Human 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.

# Purity

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

#### **Biological Activity**

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

## Storage

Lyophilized Leptin although stable at room temperature, should be stored desiccated below 0°C. Reconstituted Leptin is best stored refrigerat ed at 4°C.

## Formulation

The protein was lyophilized from a concentrated (1mg/ml) solution with 0.0045mM NaHCO3.

#### Quantitation

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.878 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 as a Reference Standard.