



6352 CORTE DEL ABETO, STE B
CARLSBAD, CA 92011 USA
01.858.642.1988 • WWW.ATSBIO.COM

Leptin Human Recombinant GROWTH FACTOR

Catalog Number: PRP-328
Quantity: 200 micrograms, 1 milligram, 5 milligrams
Format: Sterile-filtered white lyophilized (freeze-dried) powder
Host: *E. coli*

Background:

Leptin is a 16-kDa peptide hormone secreted from white adipocytes and implicated in the regulation of food intake and energy balance. It provides the key afferent signal from fat cells in the feedback system that controls body fat stores.

Specificity and Preparation:

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. The protein was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM NaHCO₃. Purity is greater than 95.0% as determined by RP-HPLC and SDS-PAGE. The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Pro-Ile-Gln. Biological activity is evidenced by inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. 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.

Usage and Storage:

Lyophilized material is very soluble in water and most aqueous buffers below and above the isoelectric point. Although stable at room temperature, material should be stored desiccated below 0°C. Reconstituted material is best stored refrigerated at 4°C. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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