Recombinant Bovine Leptin

Cat. No. LEP-06B **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Bovine Leptin produced in*E. Coli*is a single, non-glycosylated, polype ptide chain containing 146 amino acids and having a molecular mass of 16 kDa. The Leptin is purified by proprietary chromatographic techniques.
Species	Bovine
Source	E.coli
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.
Amino acid sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Pro-Ile-Arg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	The protein was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM $NaHCO_3$.
Solubility	It is recommended to reconstitute the lyophilized Leptin in sterile 18 MΩ-cm H2O not less than 100 g/ml, which can then be further diluted to other aqueous solutions.

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

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 extinctioncoefficient for a 0.1% (1 mg/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 Bovine as a Reference Standard.
Storage	Lyophilized Leptin although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution Leptin should be stored at 4℃between 2-7 days and for future use below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Pathways	Adipocytokine signaling pathway; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction

GENE INFORMATION

Gene Name	LEP leptin [Bos taurus]
Synonyms	LEP; leptin; LEP-BOVIN
Gene ID	25608
mRNA Refseq	NM_173928
Protein Refseq	NP_776353
UniProt ID	P50595

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Chromosome Location	4q32
Function	growth factor activity; hormone activity; protein binding

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA