

Active Recombinant Human Leptin

Cat. No. LEP-336H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Leptin Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16 kDa.
Species	Human
Source	E.coli
Description	Leptin inhibits food intake and stimulates energy expenditure. Leptin also has thermogenic actions and regulates enzymes of fatty acid oxidation. Severe hereditary obesity in rodents and humans is caused by defects in leptin production.
Form	Recombinant Human Leptin is lyophilized with no additives.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	Leptin Human Recombinant is fully biologically active when compared to standards. The ED50, calculated by the leptin-dependant stimulation of Human OB-R transfected mouse BaF3 indicator cells is 0.5-1.6 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.
Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is

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	recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/μs/ml, which can be further diluted into other aqueous solutions.
Purity Greater than 95% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	MVPIQKVQDD TKTLIKTIVT RINDISHTQS VSSKQKVTGL DFIPGLHPIL TL SKMDQTLA VYQQILTSMPSRNVIQISND LENLRDLLHV LAFSKSCHLP WASGLETLDS LGGVLEASGY STEVVALSRL QGSLQDMLWQ LDLSPGC
Storage	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.
Pathways	Adipocytokine signaling pathway; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction

GENE INFORMATION

Gene Name	LEP leptin [Homo sapiens]
Official Symbol	LEP
Synonyms	LEP; leptin; OB; OBS; FLJ94114; obesity factor; obese, mouse, homolog of; leptin

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	(murine obesity homolog); leptin (obesity homolog, mouse); Obese protein; Obesity factor
Gene ID	3952
mRNA Refseq	NM_000230
Protein Refseq	NP_000221
MIM	164160
UniProt ID	P41159
Chromosome Location	7q31.3
Function	growth factor activity; hormone activity; peptide hormone receptor binding; protein binding
PDBrendering based on 1ax8.	