

Active Recombinant Rabbit Leptin

Cat. No. Lep-338R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Leptin produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16,240 Dalton.
Species	Rabbit
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. In addition to its critical role in the physiologic regulation of body weight leptin has a variety of other physiologic and pathologic functions resembling those of cytokines. These functions include the regulation of hematopoiesis, angiogenesis, wound healing, inflammation, and immune responses.
Form	The protein was lyophilized from a concentrated (1mg/ml) solution with 0.1% TFA.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	rRLeptin 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 0.06 ?C 0.35 ng/ml
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

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Solubility	It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/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	MVPIHKVQDD TKTLIKTIVT RINDISHTQS VSARQRV TGL DFIPGLHPIL SLSKMDQTLA VYQQILTSLP SQNVLQIAHD LENLRDLLHL LAFSKSCSLP QTRGLQKPES LDGVLEASLY STEVVALSRL QGSLQDILQQ LDLSPEC
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.

GENE INFORMATION

Gene Name	Lep leptin [Rattus norvegicus]
Official Symbol	Lep
Synonyms	Lep; leptin; OB; obese; obesity factor; OBS; leptin (murine obesity homolog); FLJ94114; leptin (obesity homolog, mouse); obese; mouse; homolog of; Obese protein
Gene ID	25608

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mRNA Refseq	NM_013076
Protein Refseq	NP_037208
UniProt ID	P20607
Chromosome Location	4q11
Pathway	Adipocytokine signaling pathway; Adipogenesis; Cytokine-cytokine receptor interaction; Diabetes pathways; Incretin Synthesis; Integration of energy metabolism; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction; Regulation of Insulin Secretion; Synthesis
Function	cytokine activity; growth factor activity; hormone activity; peptide hormone receptor binding
PDB rendering based on 1ax8.	