

Active Recombinant Human Leptin

Cat. No. LEP-81H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human leptin sequence (containing the signal peptide sequence, and the mature human leptin sequence) and was expressed in modified <i>human 293 cells</i> .
Species	Human
Source	HEK293
Description	Leptin, also known as obesity factor and obese protein, is a member of the adipocytokine family that are cytokines expressed from adipose tissues. Other members of the adipocytokine family include TNF alpha, IL-6 and resistin. The general function of these molecules is regulation of food intake energy homeostasis, hematopoiesis, inflammation and immunity.
Amino Acid Sequence	VPIQKVQDDTKTLI KTIVTRINDISHTQ SVSSKQKVT GLDFIPGLHP ILTLSK MDQT LAV YQQILTSMPSRNV IQISNDLENLRDLLH VLAFSK SCHLPWAS GLETL DSLGG VLEA SGYSTEVVALSRLQ GSLQDMLWQLDLSPGC.
Molecular Mass	Under reducing conditions Leptin migrates as a band at approximately 15-16 kDa in SDS-PAGE. This compares with unmodified Leptin that has a predicted monomeric molecular mass of 16 kDa.
PI	Leptin separates into a number of isoforms with a pI between 5.0 and 7.5 in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified Leptin that has a predicted pI of 5.7.

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Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
Activity	The ED ₅₀ of Leptin is typically 0.25-0.35 ng/ml as measured in a cytotoxicity assay using the human K562 cell line.

GENE INFORMATION

Gene Name	LEP leptin [Homo sapiens]
Synonyms	LEP; leptin; FLJ94114; OB; OBS; leptin (murine obesity homolog); leptin (obesity homolog, mouse); obese, mouse, homolog of; obesity factor; Obesity factor; Obese protein
Gene ID	3952
mRNA Refseq	NM_000230
Protein Refseq	NP_000221
MIM	164160

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UniProt ID	P41159
Chromosome Location	7q31.3
Pathway	Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Adipocytokine signaling pathway; Neuroactive ligand-receptor interaction
Function	growth factor activity; hormone activity; peptide hormone receptor binding; protein binding

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