

# 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 *human 293 cells*.

**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.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Purity</b>	>95%, as determined by SDS-PAGE and visualized by silver stain.
<b>Formulation</b>	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
<b>Reconstitution</b>	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
<b>Storage</b>	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.
<b>Activity</b>	The ED <sub>50</sub> of Leptin is typically 0.25-0.35 ng/ml as measured in a cytotoxicity assay using the human K562 cell line.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">LEP leptin [ Homo sapiens ]</a>
<b>Synonyms</b>	LEP; leptin; FLJ94114; OB; OBS; leptin (murine obesity homolog); leptin (obesity homolog, mouse); obese, mouse, homolog of; obesity factor; Obesity factor; Obese protein
<b>Gene ID</b>	<a href="#">3952</a>
<b>mRNA Refseq</b>	<a href="#">NM_000230</a>
<b>Protein Refseq</b>	<a href="#">NP_000221</a>
<b>MIM</b>	<a href="#">164160</a>

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA