

## Recombinant Human LEP

Cat. No. LEP-225H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** The AA sequence of recombinant Human Leptin is corresponding to the AA sequence of human serum leptin.

**Species** Human

**Source** E.coli

**Description** LEP (Greek leptos meaning thin) is a 16 kDa protein hormone that plays a key role in regulating energy intake and energy expenditure, including appetite and metabolism. It is one of the most important adipose derived hormones. The Ob(Lep) gene (Ob for obese, Lep for leptin) is located on chromosome 7 in humans.

**Form** Filtered (0, 4 µm) and lyophilized in 0.5 mg/mL in 10 mM sodium citrate, pH 4.0

**Research topic** Energy metabolism and body weight regulation

**Purity** >95%

**Reconstitution** Add 0.1 M Acetate buffer pH 4 to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10 µg/mL. In higher concentrations the solubility of this antigen is limited. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

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<b>Applications</b>	ELISA; Western blotting
<b>Quality Control Test</b>	BCA to determine quantity of the protein; SDS PAGE to determine purity of the protein
<b>Sequences of amino acids</b>	VPIQKVQDDT KTLIKTIVTR INDISHTQSV SSKQKVTGLD FIPGLHPILT LSKMDQTLAV YQQILTSMPs RNVIQISNDL ENLRDLLHVL AFSKSchLPW ASGLETLDSL GGVLEASGYS TEVVALSRLQ GSLQDMLWQL DLSPGC
<b>Storage</b>	Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

## GENE INFORMATION

<b>Gene Name</b>	LEP leptin [ Homo sapiens ]
<b>Official Symbol</b>	LEP
<b>Synonyms</b>	LEP; leptin; OB; OBS; FLJ94114; obese protein; obesity factor; OTTHUMP00000212285; obese, mouse, homolog of; leptin (murine obesity homolog); leptin (obesity homolog, mouse)
<b>Gene ID</b>	3952
<b>mRNA Refseq</b>	NM_000230
<b>Protein Refseq</b>	NP_000221

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<b>MIM</b>	164160
<b>UniProt ID</b>	P41159
<b>Chromosome Location</b>	7q31
<b>Pathway</b>	Adipocytokine signaling pathway; Adipogenesis; Cytokine-cytokine receptor interaction; Diabetes pathways; HIF-1-alpha transcription factor network; Incretin Synthesis; Integration of energy metabolism; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction; Regulation of Insulin Secretion; Signaling events mediated by PTP1B; Synthesis; Transcriptional Regulation of White Adipocyte Differentiation
<b>Function</b>	growth factor activity; hormone activity; peptide hormone receptor binding
<b>Leptin</b>	