

# Active Recombinant Human Leptin Antagonist Triple Mutant, PEG-tagged

Cat. No. LEP-260H    Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Pegylated Leptin Antagonist Triple Mutant Human Recombinant is a single non-glycosylated polypeptide chain containing 146 amino and additional Ala at N-terminus acids and having a molecular weight of 35.6kDa, Leptin was mutated, resulting in L39A/D40A/F41A. However due to enlarged hydrodynamic volume it runs on the SDS-PAGE as 48 kDa protein and in gel-filtration on Superdex 200 as over 200 kDa protein. Leptin Antagonist Triple Mutant Human Recombinant is Mono-Pegylated with 20kDa PEG and was purified by proprietary chromatographic techniques.
<b>Species</b>	Human
<b>Source</b>	Human
<b>Form</b>	The protein was lyophilized from a concentrated (0.65mg/ml) solution with 0.003mM NaHCO <sub>3</sub> .
<b>Purity</b>	Greater than 98.0% as determined by: (a) Gel filtration analysis. (b) Analysis by SDS-PAGE.
<b>Bio-activity</b>	Capable of inhibiting leptin-induced proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. Its in vitro activity is 6-8 fold lower than the non-pegylated antagonist but in vivo it has profound weight gain effect in mice (as compared to the non-pegylated antagonist), resulting mainly from increased food intake.

 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>Physical Appearance</b>	White lyophilized (freeze-dried) powder.
<b>Solubility</b>	It is recommended to reconstitute the lyophilized Leptin Antagonist Triple Mutant pegylated Human Recombinant in sterile 0.4% NaHCO <sub>3</sub> adjusted to pH 8-9, not less than 100g/ml, which can then be further diluted to other aqueous solutions.
<b>Protein content</b>	Protein quantitation was carried out by UV spectroscopy at 280 nm using the absorbency value of 0.88 as the extinction coefficient for a 0.1% (1 mg/ml) solution at pH 8.0. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
<b>Storage</b>	Lyophilized Pegylated Leptin Antagonist Triple Mutant Human Recombinant although stable at room temperature for several weeks, should be stored at -18°C. Upon reconstitution at room temperature, the concentration should be up to 2mM and filter sterilization. Leptin mutant can be stored at 4°C for several weeks making it suitable for long term infusion studies using osmotic pumps. At lower concentration addition of a carrier protein (0.1% HSA or BSA) is suggested. Please prevent freeze-thaw cycles.

## GENE INFORMATION

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

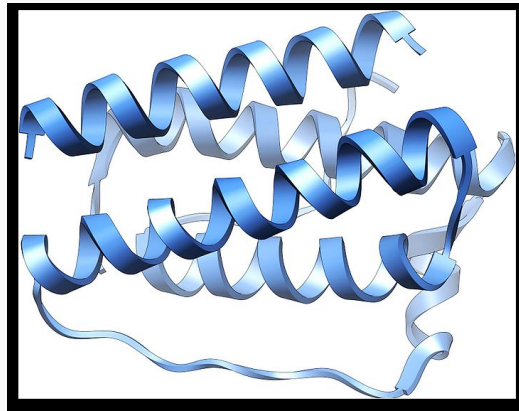
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<b>mRNA Refseq</b>	NM_000230
<b>Protein Refseq</b>	NP_000221
<b>MIM</b>	164160
<b>UniProt ID</b>	P41159
<b>Chromosome Location</b>	7q31.3
<b>Pathway</b>	Adipocytokine signaling pathway; Cytokine-cytokine receptor interaction; Jak-STAT signaling pathway; Neuroactive ligand-receptor interaction
<b>Function</b>	growth factor activity; hormone activity; peptide hormone receptor binding; protein binding

**PDB rendering based on 1ax8.**



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