Leptin Antagonist Triple Mutant, PEGylated, human recombinant (rHuLeptin-tm-PEG)

Catalog No: 97318
Lot No: XXXXX
Source: *E. coli*
Synonyms:

Description

Pegylated leptin antagonist triple mutant human recombinant is a single non-glycosilated polypeptide chain containing 146 amino acids and additional Ala at N-terminus and having a molecular weight of 35.6 kDa. Leptin was mutated, resulting in L39A/D40A/F41A. However due to enlarged hydrodymanic 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 20 kDa PEG and was purified by proprietary chromatographic techniques.

Physical Appearance

White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (0.65 mg/ml) solution with 0.003 mM $NaHCO_3$.

Solubility

It is recommended to reconstitute the lyophilized leptin antagonist triple mutant pegylated in sterile 0.4% $NaHCO_3$ adjusted to pH 8-9, not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized PEG-SHLA, although stable at room temperature for several weeks, should be stored desiccated below – 20°C. Upon reconstitution at > 0.1 mg/ml and up to 2 mg/ml of PEG-SHLA and filter sterilization mLEP mutant can be stored at 4°C or even room temperature 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.

Purity

Greater than 98.0% as determined by (a) Gel filtration analysis, (b) Analysis by SDS-PAGE.

Activity

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 (as compared to the non-pegylated antagonist), resulting mainly from increased food intake. Its in vivo activity compared to that of PEG-MLA is 9 - 27 fold higher.

Usage

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