Leptin Antagonist Triple Mutant, PEGylated, rat recombinant (rrLeptin-tm-PEG)

Catalog No: 97134
Lot No: XXXXX
Source: *E. coli*
Synonyms:

Description
Leptin antagonist triple mutant rat recombinant is a single non-glycosilated polypeptide chain containing 146 amino acids and additional Ala at N-terminus and having a molecular mass of approx. 16 kDa. The rat leptin antagonist was mutated, resulting in L39A/D40A/F41A mutant. The rat leptin antagonist is bound to 20 kDa mono-PEG at N-terminus, resulting in 35. 6 kDa. The rat leptin anatagonist triple mutant runs as a 48 kDa. Leptin antagonist triple mutant was purified by proprietary chromatographic techniques.

Physical Appearance
White lyophilized (freeze-dried) powder.

Formulation
Rat leptin triple anatagonist 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 in sterile water or sterile 0.4% $NaHCO_3$ adjusted to pH 8-9, not less than 100 µg/ml, which can then be further diluted with other aqueous solutions.

Stability
Lyophilized leptin antagonist triple mutant, although stable at room temperature for several weeks, should be stored desiccated below -18°C. Upon reconstitution at > 0.1 mg/ml leptin mutant and up to 2 mM and filter sterilization LEP 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 99.0% as determined by (a) Gel filtration analysis, (b) Analysis by SDS-PAGE.

Activity
Leptin antagonist triple mutant rat recombinant half-life in circulation after SC injection was over 20 hours. Leptin antagonist triple mutant rat recombinant is capable of inhibiting leptin-induced proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. Leptin antagonist triple mutant rat recombinant in vitro activity is 5 - 6 fold lower than the non-pegylated antagonist, though in vivo it has profound weight gain effect (as compared to the non-pegylated antagonist), resulting mainly from increased food intake.

Usage