



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Leptin Antagonist Quadruple Mutant

Catalog No.

IP-01-353P

Source*Escherichia Coli.*

Description

Recombinant Human Leptin Quadruple Mutant is a single polypeptide chain containing 146 amino acids and an additional Ala at N-terminus acids and having a Mw of 16 kDa. Human Leptin was mutated, resulting in L39A/D40A/F41A/I42A. Leptin Antagonist Quadruple Mutant was purified by proprietary chromatographic techniques.

Physical Appearance

White lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1mg/ml) solution with 0.0045mM NaHCO₃.

Solubility

It is recommended to reconstitute the lyophilized Leptin Antagonist Quadruple Mutant in sterile 0.4% NaHCO₃ adjusted to pH 8-9, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Leptin Antagonist Quadruple Mutant although stable at room temperature for several weeks, should be stored desiccated below -18°C. Upon reconstitution at > 0.1 Leptin mutant mg/ml 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 98.0% as determined by:

- (a) Gel filtration analysis.
- (b) Analysis by SDS-PAGE.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Pro-Ile-Gln

Biological Applications

Leptin Quadruple Antagonist Mutant is capable of inhibiting leptin-induced proliferation of BAF/3 cells stably transected with the long form of human Leptin receptor. It also inhibits various Leptin effects in several *in vitro* bioassays.

Protein Content

Protein quantitation was carried out by UV spectroscopy at 280 nm using the absorbency value of 0.89 as the extinction coefficient for a 0.1% (1mg/ml) solution at pH 8.0. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).

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