

Recombinant Ovine Leptin, Antagonist Quadruple Mutant

Cat. No. LEP-200 Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Ovine Leptin Antagonist Quadruple Mutant is a single non-glycosylated polypeptide chain containing 146 amino and additional Ala at N-terminus acids and having a molecular mass of ~16 kDa, Leptin was mutated, resulting in L39A/D40A/F41A/I42A mutant. Leptin Antagonist Quadruple Mutant was purified by proprietary chromatographic techniques.

Species Ovine

Source E.coli

Description A 16-kDa peptide hormone secreted from white adipocytes and implicated in the regulation of food intake and energy balance. Leptin provides the key afferent signal from fat cells in the feedback system that controls body fat stores.

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

Physical Appearance White lyophilized (freeze-dried) powder.

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

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

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Solubility	It is recommended to reconstitute the lyophilized Leptin-Antagonist Quadruple Mutant in sterile 0.4% NaHCO ₃ adjusted to pH 8-9, not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	Leptin qA is capable of inhibiting leptin-induced proliferation of BAF/3 cells stably transfected with the long form of ovine 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 0.21 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 I(ntelliGenetics).
Storage	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 LEP-qA mutant mg/ml and up to 2 mM and filter sterilization Leptin 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.

GENE INFORMATION

Gene Name	LEP leptin [<i>Ovis aries</i>]
Synonyms	LEP; leptin; ob; leptin (obesity homolog, mouse)
Gene ID	443534
UniProt ID	Q28603

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