

Leptin, salamander recombinant (rsLeptin)

Catalog No: 97320 Lot No: XXXXX Source: E. coli

Synonyms: OB Protein, Obesity Protein, OBS, Obesity factor, Leptin

Background

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.

Description

Leptin salamander recombinant produced in *E. coli* 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 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

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

Solubility

It is recommended to reconstitute the lyophilized leptin in sterile 0.4% NaHCO₃ pH-9 not less than $100 \mu g/ml$, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized leptin, although stable at room temperature for 3 weeks, should be stored desiccated below -18?C. Upon reconstitution leptin should be stored at 4?C between 2-7 days and for future use below -18?C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 99.0% as determined by (a) Analysis by Gel-Filtration, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the ten N-terminal amino acids was determined and was found to be Ala-Ile-Met-Val-Asp-Gln-Leu-Arg-Met-Asp.

Activity

By inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor. Its activity in that test is similar to that of mouse leptin (see Salomon et al (2006) Protein Expression and Purification 47, 128–136).

Usage

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