



Leptin, mouse recombinant (rmLeptin)

Catalog No: 94951
Lot No: XXXXX
Source: *E. coli*
Synonyms: OB Protein, Obesity Protein, OBS, Obesity factor

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 Mouse Recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16.2 kDa. Leptin is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Mouse Leptin was lyophilized from a concentrated (1 mg/ml) solution containing 0.1% TFA.

Solubility

It is recommended to reconstitute the lyophilized Leptin in sterile 18 M Ω -cm H₂O not less than 100 μ 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 95.0% as determined by (a) Analysis by SEC-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MVPIQKVQDD TKTLIKTIIVT RINDISHTQS VSAKQRVTVGL DFIPGLHPIL SLSKMDQTLA VYQQVLTSLP SQNVLQIAND
LENLRDLLHL LAFSKSCSLP QTSGLQKPES LDGVLEASLY STEVVALSRL QGSLQDILQQ LDVSPEC

Activity

Biological activity of Mouse Leptin is performed in two different mouse obesity models, ob/ob and NZO. Both strains of mice were treated via intraperitoneal injection once daily at a dose of 5 μ g Leptin/gram body weight for a period of 14 days. Significant effects on body weight, food consumption, and plasma glucose levels were observed to saline-treated controls.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.

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