Leptin Rabbit E. coli

Product Data Sheet

Type: Recombinant
Tag: Tagless
Source: E. coli
Species: Rabbit
Other names: Obesity factor, Obese protein, LEP, OB, OBS

Cat. No.:

RP1765070100	(100 µg)
RP1765070200	(200 ug)
RP1765071000	(1 mg)

Description

Leptin Rabbit Recombinant produced in E.coli is a single, non-glycosylated, polypeptide chain containing 146 amino acids and having a molecular mass of 16 kDa. The Leptin is purified by proprietary chromatographic techniques.

Introduction to the Molecule

Leptin, the product of the *ob* (obese) gene, is a single-chain 16 kDa proteohormone consisting of 146 amino acid residues. Leptin is produced by differentiated adiocytes, although production have been demonstrated in other tissues, such as fundus of the stomach, the sceletal muscle, the liver, and the placenta. Leptin is considered to play an important role in appetite control, fat metabolism and body weight regulation. It targets the central nervous system, in particular the hypothalamus, suppressing food intake and stimulating energy expenditure. In humans, leptin levels correlate with body mass index (BMI) and percentage body fat, and are elevated even in obese individuals. Leptin has a dual action; it decreases the appetite and increases energy consumption, causing more fat to be burned.

Research topic

Diabetology - Other Relevant Products, Energy metabolism and body weight regulation, Reproduction

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.

Source

E. coli

Purity

Greater than 95.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Biological Activity

Biological active as evidenced by inducing proliferation of BAF/3 cells stably transfected with the long form of human leptin receptor.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution with 0.0045 mM $NaHCO_3$.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

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.**

Physical Appearance

Sterile filtered White lyophilized (freeze-dried) powder.

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