Leptin Mouse E. coli Tag free

Product Data Sheet

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

Cat. No.:
RD272001100 (0.1 mg)

Introduction to the Molecule

Leptin is a single-chain 16 kDa proteohormone consisting of 146 amino acid residues. Leptin is produced in differentiated adiocytes, the fundus of the stomach, the sceletal muscle, the liver, and the placenta. Leptin has a vital 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. They 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

Animal studies, Energy metabolism and body weight regulation, Reproduction

Amino Acid Sequence

MVPIQKVQDD TKTLIKTIVT RINDISHTQS VSAKQRVTGL DFIPGLHPIL SLSKMDQTLA VYQQVLTSLP SQNVLQIAND
LENLRDLLHL LAFSKSCSLP QTSGLQKPES LDGVLEASLY STEVVALSRL QGSLQDILQQ LDVSPEC

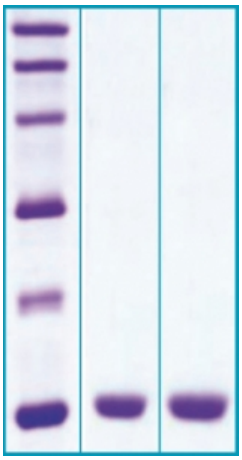
Source

E. coli

Purity

>95%

SDS-PAGE gel



14% SDS-PAGE separation of Mouse Leptin
1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa
2. reduced and heated sample, 5µg/lane
3. non-reduced and non-heated sample, 5µg/lane

Biological 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 5ug 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.

Endotoxin

< 1.0 EU/ug

Formulation

Filtered (0.4 µm) and lyophilized in 0.5 mg/mL with 0.1% TFA.

Reconstitution

Add 200ul of injection water to prepare a working stock solution of 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Shipping

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

Storage, Stability/Shelf Life

Store lyophilized protein at -80°C. Lyophilized protein remains stable until the expiry date when stored at -80°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

Quality Control Test

BCA to determine quantity of the protein.
SDS PAGE to determine purity of the protein.
LAL to determine quantity of endotoxin.

Applications

ELISA, Western blotting

Note

This product is intended for research use only.

Gentaur Molecular Products
Voortstraat 49
1910 Kampenhout, Belgium
http://www.gentaur-worldwide.com