

Leptin Human, Rabbit Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E. coli*

Host: Rabbit

Cat. No.:

RD181001220

(0.1 mg)

Other names: Obesity factor, Obese protein, LEP, OB, OBS

Research topic

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

Preparation

The antibody was raised in rabbits by immunization with the recombinant Human Leptin.

Species Reactivity

Human

Not yet tested in other species.

Purification Method

Immunoaffinity chromatography on a column with immobilized Human Leptin.

Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

Reconstitution

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

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

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

Quality Control Test

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

Applications

ELISA, Immunoprecipitation, Western blotting

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 adipocytes, although production have been demonstrated in other tissues, such as fundus of

the stomach, the skeletal 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.

References to this Product

- Chan JL, Matarese G, Shetty GK, Raciti P, Kelesidis I, Aufiero D, De Rosa V, Perna F, Fontana S, Mantzoros CS. *Differential regulation of metabolic, neuroendocrine, and immune function by leptin in humans*. Proc Natl Acad Sci U S A. 2006 May 30;103 (22):8481-6
- Ricci MR, Lee MJ, Russell CD, Wang Y, Sullivan S, Schneider SH, Brodin RE, Fried SK. *Isoproterenol decreases leptin release from rat and human adipose tissue through posttranscriptional mechanisms*. [Am J Physiol Endocrinol Metab](#) . Apr;288(4):E798-804 (2005)
- Aparicio T, Kermorgant S, Darmoul D, Guilmeau S, Hormi K, Mahieu-Caputo D, Lehy T. *Leptin and Ob-Rb receptor isoform in the human digestive tract during fetal development*. J Clin Endocrinol Metab. 2005 Nov;90 (11):6177-84
- Matarese G, Carrieri PB, La Cava A, Perna F, Sanna V, De Rosa V, Aufiero D, Fontana S, Zappacosta S. *Leptin increase in multiple sclerosis associates with reduced number of CD4(+)CD25+ regulatory T cells*. Proc Natl Acad Sci U S A. 2005 Apr 5;102 (14):5150-5
- Matarese G, Carrieri PB, La Cava A, Perna F, Sanna V, De Rosa V, Aufiero D, Fontana S, Zappacosta S. *Leptin increase in multiple sclerosis associates with reduced number of CD4(+)CD25+ regulatory T cells*. Proc Natl Acad Sci U S A. 2005 Apr 5;102 (14):5150-5
- Goiot H, Laigneau JP, Devaud H, Sobhani I, Bado A. *Similarities and differences in the transcriptional regulation of the leptin gene promoter in gastric and adipose cells*. FEBS Lett. 2005 Mar 28;579 (9):1911-6

Note

This product is for research use only.

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