



## Leptin Rat, Rabbit Polyclonal Antibody

### Product Data Sheet

**Source of Antigen:** *E. coli*

**Host:** Rabbit

**Cat. No.:**

RD381001220 (0.1 mg)

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

### Research topic

Animal studies, Energy metabolism and body weight regulation, Reproduction

### Preparation

The antibody was raised in rabbits by immunization with the recombinant Rat Leptin. The immunization antigen (16.24 kDa) is a protein containing 147 AA of recombinant Rat Leptin.

### Species Reactivity

Rat, Mouse

Not yet tested in other species.

### Purification Method

Immunoaffinity chromatography on a column with immobilized recombinant Rat 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, 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

- Cong L, Chen K, Li J, Gao P, Li Q, Mi S, Wu X, Zhao AZ. *Regulation of adiponectin and leptin secretion and expression by insulin through a PI3K-PDE3B dependent mechanism in rat primary adipocytes.* Biochem J. 2007 May 1;403 (3):519-25

#### Note

This product is for research use only.

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