

**LEPR Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP17169B****Specification**

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**LEPR Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P48357</a>
Other Accession	<a href="#">NP_001003680.1</a> , <a href="#">NP_001003679.1</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	957-986

**LEPR Antibody (C-term) - Additional Information****Gene ID** 3953**Other Names**

Leptin receptor, LEP-R, HuB219, OB receptor, OB-R, CD295, LEPR, DB, OBR

**Target/Specificity**

This LEPR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 957-986 amino acids from the C-terminal region of human LEPR.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

LEPR Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**LEPR Antibody (C-term) - Protein Information****Name** LEPR**Synonyms** DB, OBR**Function** Receptor for hormone LEP/leptin (Probable) (PubMed:[22405007](#)). On ligand binding,

mediates LEP central and peripheral effects through the activation of different signaling pathways such as JAK2/STAT3 and MAPK cascade/FOS. In the hypothalamus, LEP acts as an appetite-regulating factor that induces a decrease in food intake and an increase in energy consumption by inducing anorexigenic factors and suppressing orexigenic neuropeptides, also regulates bone mass and secretion of hypothalamo-pituitary-adrenal hormones (By similarity) (PubMed:[9537324](#)). In the periphery, increases basal metabolism, influences reproductive function, regulates pancreatic beta-cell function and insulin secretion, is pro-angiogenic and affects innate and adaptive immunity (PubMed:[25060689](#), PubMed:[12504075](#), PubMed:[8805376](#)). Control of energy homeostasis and melanocortin production (stimulation of POMC and full repression of AgRP transcription) is mediated by STAT3 signaling, whereas distinct signals regulate NPY and the control of fertility, growth and glucose homeostasis. Involved in the regulation of counter-regulatory response to hypoglycemia by inhibiting neurons of the parabrachial nucleus. Has a specific effect on T lymphocyte responses, differentially regulating the proliferation of naive and memory T -cells. Leptin increases Th1 and suppresses Th2 cytokine production (By similarity).

#### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Basolateral cell membrane

#### **Tissue Location**

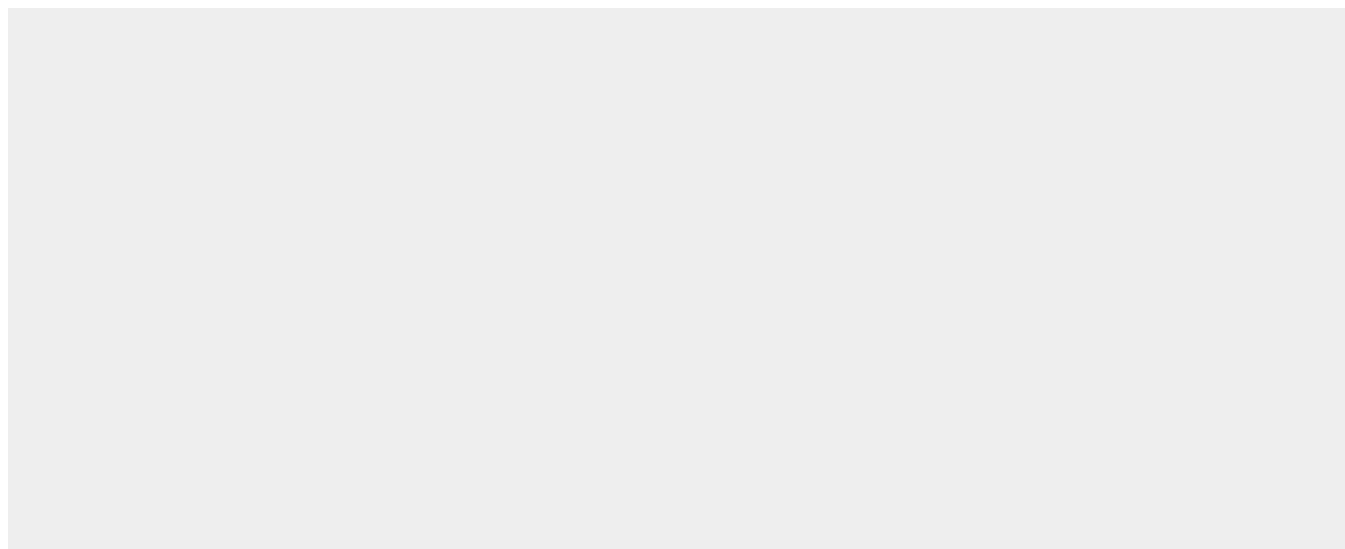
Isoform A is expressed in fetal liver and in hematopoietic tissues and choroid plexus. In adults highest expression in heart, liver, small intestine, prostate and ovary. Low level in lung and kidney. Isoform B is highly expressed in hypothalamus, but also in skeletal muscle. Detected in fundic and antral epithelial cells of the gastric mucosa (PubMed:19159218). Isoform B and isoform A are expressed by NK cells (at protein level) (PubMed:12504075)

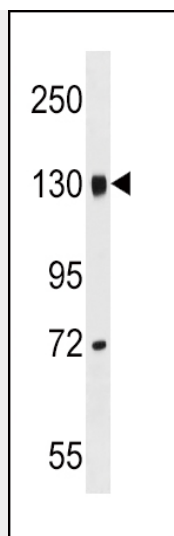
#### **LEPR Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **LEPR Antibody (C-term) - Images**





LEPR Antibody (C-term) (Cat. #AP17169b) western blot analysis in mouse brain tissue lysates (35ug/lane). This demonstrates the LEPR antibody detected the LEPR protein (arrow).

#### **LEPR Antibody (C-term) - Background**

The protein encoded by this gene belongs to the gp130 family of cytokine receptors that are known to stimulate gene transcription via activation of cytosolic STAT proteins. This protein is a receptor for leptin (an adipocyte-specific hormone that regulates body weight), and is involved in the regulation of fat metabolism, as well as in a novel hematopoietic pathway that is required for normal lymphopoiesis. Mutations in this gene have been associated with obesity and pituitary dysfunction. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. It is noteworthy that this gene and LEPROT gene (GeneID:54741) share the same promoter and the first 2 exons, however, encode distinct proteins (PMID:9207021).

#### **LEPR Antibody (C-term) - References**

Hu, M., et al. Pharmacogenet. Genomics 20(10):634-637(2010)  
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)  
de Luis, D.A., et al. Ann. Nutr. Metab. 57(2):89-94(2010)  
Louis, G.W., et al. J. Neurosci. 30(34):11278-11287(2010)  
Sarzynski, M.A., et al. Int J Obes (Lond) (2010) In press :