

**LEPR / Leptin Receptor Antibody (Internal)**  
**Goat Polyclonal Antibody**  
**Catalog # ALS12613****Specification**

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**LEPR / Leptin Receptor Antibody (Internal) - Product Information**

Application	IHC
Primary Accession	<a href="#">P48357</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	132kDa KDa

**LEPR / Leptin Receptor Antibody (Internal) - Additional Information****Gene ID** 3953**Other Names**

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

**Target/Specificity**

Human LEPR / Leptin Receptor. This antibody is expected to recognise all three reported isoforms (NP\_002294.2; NP\_001003679.1; NP\_001003680.1).

**Reconstitution & Storage**

Store at -20°C. Minimize freezing and thawing.

**Precautions**

LEPR / Leptin Receptor Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**LEPR / Leptin Receptor Antibody (Internal) - Protein Information****Name** LEPR**Synonyms** DB, OBR**Function**

Receptor for hormone LEP/leptin (Probable) (PubMed:<a href="http://www.uniprot.org/citations/22405007" target="\_blank">22405007</a>). 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:<a href="http://www.uniprot.org/citations/9537324" target="\_blank">9537324</a>). 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:<a href="http://www.uniprot.org/citations/25060689" target="\_blank">25060689</a>, PubMed:<a href="http://www.uniprot.org/citations/12504075" target="\_blank">12504075</a>, PubMed:<a href="http://www.uniprot.org/citations/8805376" target="\_blank">8805376</a>). 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 -ells. 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**

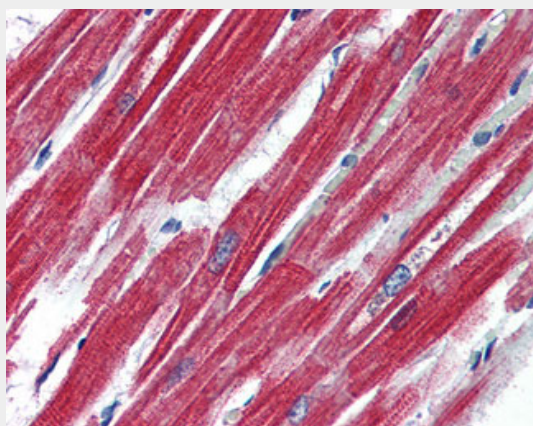
Isoform A is expressed in fetal liver and in hematopoietic tissues and choroid plexus. In adults highest expression in heart, liver, small intestine, prostate and ovary. Low level in lung and kidney. Isoform B is highly expressed in hypothalamus, but also in skeletal muscle. Detected in fundic and antral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

### **LEPR / Leptin Receptor Antibody (Internal) - 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 / Leptin Receptor Antibody (Internal) - Images**



Anti-Leptin Receptor antibody IHC of human heart.

### **LEPR / Leptin Receptor Antibody (Internal) - Background**

Receptor for obesity factor (leptin). On ligand binding, mediates signaling through JAK2/STAT3.

Involved in the regulation of fat metabolism and, in a hematopoietic pathway, required for normal lymphopoiesis. May play a role in reproduction. Can also mediate the ERK/FOS signaling pathway (By similarity).

#### **LEPR / Leptin Receptor Antibody (Internal) - References**

Tartaglia L.A., et al. Cell 83:1263-1271(1995).  
Bennett B.D., et al. Curr. Biol. 6:1170-1180(1996).  
Cioffi J.A., et al. Nat. Med. 2:585-589(1996).  
Thompson D.B., et al. Hum. Mol. Genet. 6:675-679(1997).  
Luoh S.-M., et al. J. Mol. Endocrinol. 18:77-85(1997).