



## Rabbit Anti-Leptin receptor antibody

SL20497R

<b>Product Name:</b>	Leptin receptor
<b>Chinese Name:</b>	瘦素受体抗体
<b>Alias:</b>	obl; CD 295; CD295; CD295 antigen; Db; Fa; HuB219; LEP R; LEPR; LEPROT; Leptin receptor fatty; Leptin receptor gene related protein; Leptin receptor precursor; OB R; OB-R; OB R gene related protein; OB receptor; OB-RGRP; Obr; Ob-R a/b/c/d/e; LEPR HUMAN; LEPRD; Leptin receptor.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Chicken,Dog,Pig,Cow,Rabbit,Sheep,
<b>Applications:</b>	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	103/132kDa
<b>Cellular localization:</b>	The cell membraneSecretory protein
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human Leptin receptor:561-660/1165<Extracellular>
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	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).[provided by RefSeq, Nov 2010]

**Function:**

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).

**Subunit:**

On leptin stimulation, homodimerizes. The phosphorylated receptor binds a number of SH2 domain-containing proteins such as STAT3, PTPN11, and SOCS3. Interaction with SOCS3 inhibits LRB signaling.

**Subcellular Location:**

Cell membrane; Single-pass type I membrane protein. Isoform E: Secreted (Probable). 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.

**Tissue Specificity:**

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.

**Post-translational modifications:**

On ligand binding, phosphorylated on two conserved C-terminal tyrosine residues (isoform B only) by JAK2. Tyr-986 is required for complete binding and activation of PTPN11, ERK/FOS activation and, for interaction with SOCS3 (By similarity). Phosphorylation on Tyr-1141 is required for STAT3 binding/activation.

**Similarity:**

Belongs to the type I cytokine receptor family. Type 2 subfamily.  
Contains 4 fibronectin type-III domains.  
Contains 1 Ig-like (immunoglobulin-like) domain.

**SWISS:**

P48357

**Gene ID:**

3953

**Database links:**

[Entrez Gene: 3953](#)Human

[Entrez Gene: 16847](#)Mouse

[Omim: 601007](#)Human

[SwissProt: P48357](#)Human

[SwissProt: P48356](#)Mouse

[Unigene: 23581](#)Human

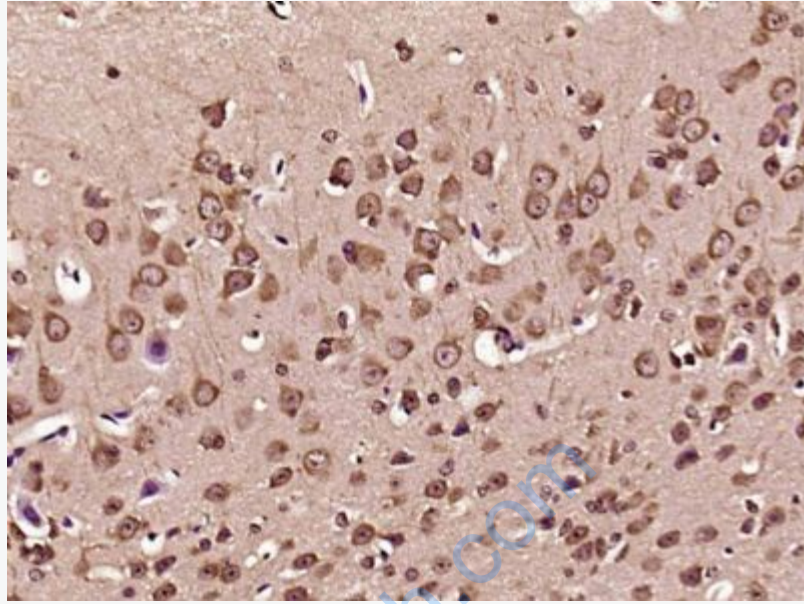
[Unigene: 723178](#)Human

[Unigene: 259282](#)Mouse

**Important Note:**

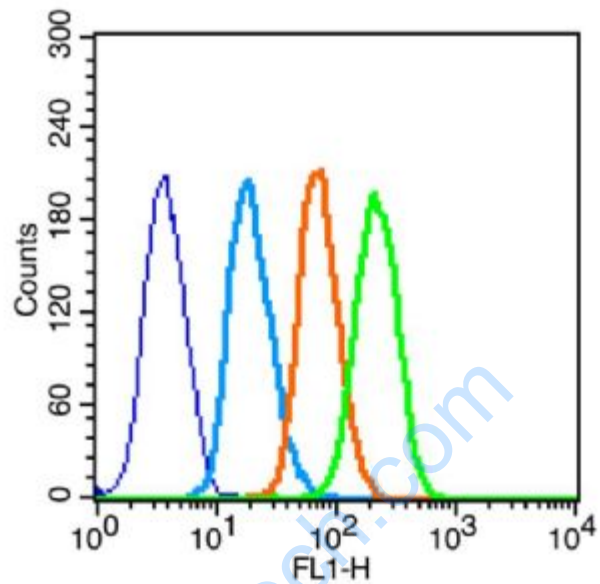
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Leptin是一种分子量为16kDa的脂肪组织源激素, 由脂肪细胞分泌的, 具有强亲水性, 以单体形式存在于血浆中。Leptin具有广泛的生物学效应, 作用于下丘脑, 调节食欲、能量代谢及体重。Leptin还可能作为脂肪-胰岛内分泌轴一部分, 参与胰岛素分泌的调节。Leptin receptor (OB-R)是与gp130最密切相关的Signal transduction的共同成分,属1类cell factor超家族, 下丘脑有丰富的Leptin receptor, 在其它部位也有分布, 但水平较低: 如胰岛素B细胞; 脉络丛; 肝、肺、心、肾、睾丸、lymphocyte和脂肪细胞中。人类存在四个异性体, 均为单跨膜受体。其中OB-Rb在胞内结构域最长, 是唯一能进行信号传导并调节热量摄入和能量消耗的异性体, 分子量为132kDa。



**Picture:**

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Leptin receptor) Polyclonal Antibody, Unconjugated (SL20497R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (Black line): Raji (Black).

Primary Antibody (green line): Rabbit Anti-Leptinreceptor antibody (SL20497R)

Dilution:  $1\mu\text{g} / 10^6$  cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE

Dilution:  $1\mu\text{g} / \text{test}$ .

#### Protocol

The cells were fixed with 70% ice-cold methanol overnight at  $4^{\circ}\text{C}$  and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature . Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The

	secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.
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