

Rabbit LEPR Polyclonal Antibody | anti-LEPR antibody

LEPR Antibody

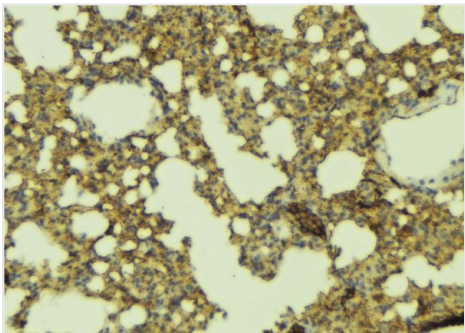
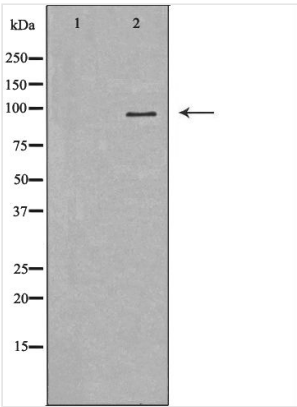
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326873	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

LEPR; Polyclonal Antibody; LEPR Antibody; CD 295; CD295; CD295 antigen; Db; Fa; HuB219; LEP R; LEP-R; LEPR_HUMAN; LEPRD; Leptin receptor; Leptin receptor fatty; Leptin receptor gene related protein; Leptin receptor precursor; OB R gene related protein; OB receptor; OB-R; OB-RGRP; obl; Obr; anti-LEPR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	LEPR antibody detects endogenous levels of total LEPR
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	896
Applicable Applications for anti-LEPR antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide of human LEPR
Subcellular Location	Secreted and Cell Membrane.
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, 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).
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326873 at 1/100 staining Mouse lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of extracts of HepG2, using LEPR antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-LEPR antibody

Description: 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).

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 anorexinogenic 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).

Subunit Structure: Present as a mixture of monomers and dimers (Probable). The phosphorylated receptor binds a number of SH2 domain-containing proteins such as JAK2, STAT3, PTPN11, and SOCS3 (By similarity) (PubMed:9600917). Interaction with SOCS3 inhibits JAK/STAT signaling and MAPK cascade (By similarity).

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, for interaction with SOCS3 and SOCS3 mediated inhibition of leptin signaling. Phosphorylation on Tyr-1141 is required for STAT3 binding/activation. Phosphorylation of Tyr-1079 has a more accessory role.

Similarity: The cytoplasmic domain may be essential for intracellular signal transduction by activation of JAK tyrosine kinase and STATs. The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding. The box 1 motif is required for JAK interaction and/or activation. Belongs to the type I cytokine receptor family. Type 2 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	51093379
NCBI GeneID	3953
NCBI Accession #	NP_001003679.1
NCBI GenBank Nucleotide #	NM_001003679.3

UniProt Accession #	P48357; Q13592; Q13593; Q13594; Q92919; Q92920; Q92921
Molecular Weight	Observed: 96 kDa Predicted: 133 kDa
NCBI Official Full Name	leptin receptor isoform 3
NCBI Official Synonym Full Names	leptin receptor
NCBI Official Symbol	LEPR
NCBI Official Synonym Symbols	OBR; OB-R; CD295; LEP-R; LEPRD
NCBI Protein Information	leptin receptor
UniProt Protein Name	Leptin receptor
UniProt Gene Name	LEPR
UniProt Synonym Gene Names	DB; OBR; LEP-R; OB-R

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/lepr-antibody-immunohistochemistry-western-blot-elisa/326873>