abcam

Product datasheet

Anti-Leptin Receptor antibody ab50424

1 References 2 Images

Overview

Product name	Anti-Leptin Receptor antibody
Description	Goat polyclonal to Leptin Receptor
Host species	Goat
Specificity	This antibody is expected to recognise all three reported isoforms (NP_002294.2; NP_001003679.1; NP_001003680.1) of Leptin Receptor.
Tested applications	**Suitable for:** IHC-P, Flow Cyt, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Dog
Immunogen	Synthetic peptide corresponding to Human Leptin Receptor aa 829-841 (internal sequence). Sequence: C-TQDDIEKHQSDAG Database link: **P48357** Run BLAST with Run BLAST with
Positive control	WB: Human Cerebellum, Mouse Foetal Brain and Rat Brain lysate. Flow Cyt: K562 cells
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% Tris buffered saline, 0.5% BSA

Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab50424 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 4 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt		Use a concentration of 10 µg/ml.
WB		Use a concentration of 1 - 2 µg/ml. Detects a band of approximately 150 kDa (predicted molecular weight: 132 kDa). 1 hour primary incubation is recommended for this product.

Target

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.
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.
Sequence similarities	Belongs to the type I cytokine receptor family. Type 2 subfamily. Contains 4 fibronectin type-III domains. Contains 1 Ig-like (immunoglobulin-like) domain.
Domain	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.
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.
Cellular localization	Secreted and Cell membrane.

Images

Western blot - Anti-Leptin Receptor antibody (ab50424)

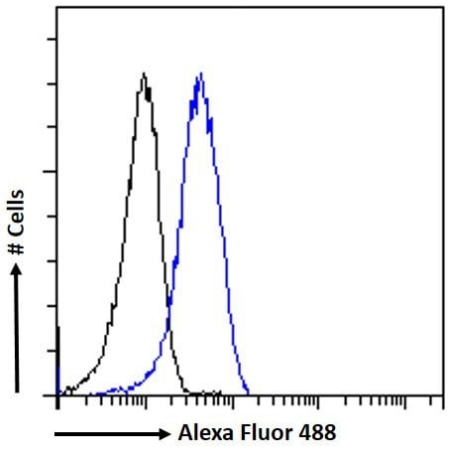
Lane 1 : Anti-Leptin Receptor antibody (ab50424) at 1.75 µg/ml
Lanes 2-3 : Anti-Leptin Receptor antibody (ab50424) at 1.5 µg/ml

Lane 1 : Human Cerebellum tissue lysate
Lane 2 : Mouse Foetal Brain tissue lysate
Lane 3 : Rat Brain tissue lysate

Lysates/proteins at 35 µg per lane.

Predicted band size: 132 kDa

Lysate in RIPA buffer. Detected by chemiluminescence.



Flow Cytometry - Anti-Leptin Receptor antibody (ab50424)

Flow cytometric analysis of paraformaldehyde fixed K562 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10µg/mL) followed by Alexa Fluor 488 secondary antibody (1µg/mL). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.

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