


Anti-Leptin Receptor antibody ab104403

★★★★★ [3 Abreviews](#) [14 References](#) [2 Images](#)

Overview

Product name	Anti-Leptin Receptor antibody
Description	Rabbit polyclonal to Leptin Receptor
Host species	Rabbit
Specificity	From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help.
Tested applications	Suitable for: WB, IHC-P Unsuitable for: ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Macaque monkey 
Immunogen	Synthetic peptide within Human Leptin Receptor aa 450-550 conjugated to keyhole limpet haemocyanin. The exact sequence is proprietary. Database link: P48357 (Peptide available as ab115940)
Positive control	WB: HepG2 whole cell lysate. IHC-P: human normal kidney.
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab104403 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

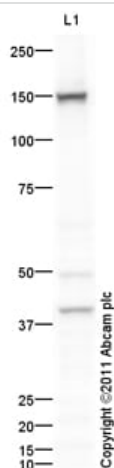
Application	Abreviews	Notes
WB	★★★★★ (2)	Use a concentration of 1 µg/ml. Detects a band of approximately 150 kDa (predicted molecular weight: 132 kDa).
IHC-P		Use a concentration of 5 µg/ml.

Application notes Is unsuitable for ICC/IF.

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
(ab104403)

Anti-Leptin Receptor antibody (ab104403) at 1 µg/ml + HepG2
(Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
at 10 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at
1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

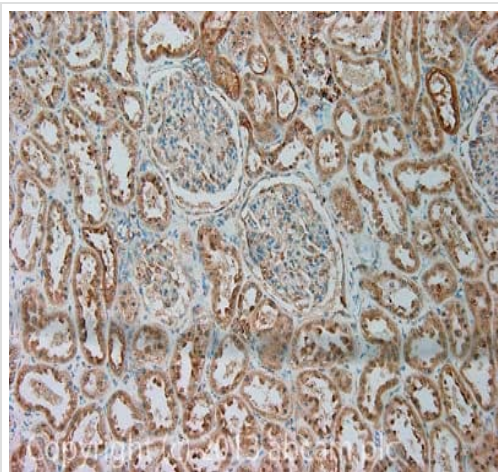
Predicted band size: 132 kDa

Observed band size: 150 kDa

Additional bands at: 40 kDa, 49 kDa. We are unsure as to the
identity of these extra bands.

Exposure time: 1 minute

Leptin Receptor contains an extensive number of potential
glycosylation sites (SwissProt) which may explain its migration at a
higher molecular weight than predicted.



Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-Leptin Receptor antibody
(ab104403)

IHC image of aLeptin Receptor staining in Human normal kidney
formalin fixed paraffin embedded tissue section, performed on a
Leica Bond™ system using the standard protocol F. The section
was pre-treated using heat mediated antigen retrieval with sodium
citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The
section was then incubated with ab104403, 5µg/ml, for 15 mins at
room temperature and detected using an HRP conjugated compact
polymer system. DAB was used as the chromogen. The section
was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated)
customers should optimize variable parameters such as antigen
retrieval conditions, primary antibody concentration and antibody
incubation times.

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