

Product datasheet

Anti-Leptin Receptor antibody [LPR-01] ab2139

1 Image

Overview

Product name	Anti-Leptin Receptor antibody [LPR-01]
Description	Mouse monoclonal [LPR-01] to Leptin Receptor
Tested applications	Suitable for: IHC-P, WB, ELISA
Species reactivity	Reacts with: Human Does not react with: Mouse
Immunogen	Fusion protein, corresponding to amino acids 1-839 of Human Leptin Receptor fused to the Fc region of human IgG (with IIEGR added at the amino terminus and 6 histidine residues added at the carboxy terminus). Will detect all Leptin receptor isoforms
Positive control	Human Leptin Receptor/FC chimera (This antigen migrated as a 190-220 protein in SDS-PAGE).

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: 7.20 Constituents: 0.6% Sodium chloride, PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	LPR-01
Myeloma	NS0
Isotype	IgG1
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab2139** 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
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IHC-P

WB

ELISA

Application notes

ELISA: Use at an assay dependent dilution.
 IHC-P: 1/10 - 1/100.
 WB: Use at an assay dependent dilution. Predicted molecular weight: 132.4 kDa.
 The native leptin receptor is a homodimer held together with disulfide bonds. On a reducing SDS-PAGE, bands may appear as approximately 60 kDa subunits. Further variations in size is possible and is due to glycosylation.

Not yet tested in other applications.
 Optimal dilutions/concentrations should be determined by the end user.

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Leptin Receptor antibody [LPR-01] (ab2139)

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