abcam

ab325970

Anti-Leptin Receptor antibody [EPR28292-590]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR28292-590
Purification technique	Affinity purification Protein A
Specificity	This antibody recognizes both long and short isoforms of the human leptin receptor based on the immunogen design.
Concentration	0.495 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	1/100

Notes	-

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information LEPR

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:12504075, PubMed:25060689, 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 -ells. Leptin increases Th1 and suppresses Th2 cytokine production (By similarity). Isoform A. May transport LEP across the blood-brain barrier. Binds LEP and mediates LEP endocytosis. Does not induce phosphorylation of and activate STAT3. Isoform E. Antagonizes Isoform A and isoform B-mediated LEP binding and endocytosis.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

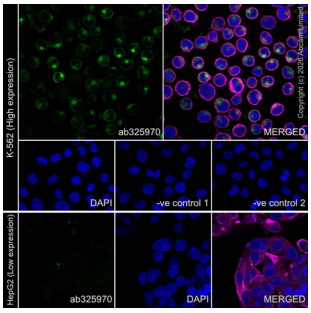
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Leptin Receptor antibody [EPR28292-590] (ab325970)

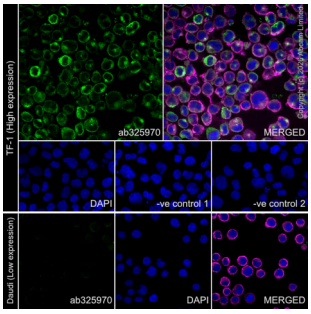
Leptin Receptor Immunocytochemistry/ Immunofluorescence staining of K-562 (human chronic myelogenous leukemia lymphoblast) using rabbit Anti-Leptin Receptor antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized K-562 (human chronic myelogenous leukemia lymphoblast) HepG2 (human hepatocellular carcinoma epithelial cell) cells labelling Leptin Receptor with ab325970 at 1/50 (10.02 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic staining in K-562 cells and weak staining in HepG2 cells (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Low expression: HepG2(PMID:22207628). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

-ve control 1: ab325970 at 1/50 dilution, followed by ab150120 at 1/1000 dilution.-ve control 2: ab7291 at 1/1000 dilution, followed by ab150081 at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Leptin Receptor antibody [EPR28292-590] (ab325970)

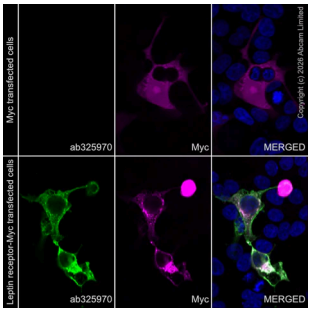
Leptin Receptor Immunocytochemistry/ Immunofluorescence staining of TF-1 (human erythroleukemia erythroblast) using rabbit Anti-Leptin Receptor antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized TF-1 (human erythroleukemia erythroblast) Daudi (human Burkitt's lymphoma lymphoblast) cells labelling Leptin Receptor with ab325970 at 1/50 (10.02 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic staining in TF-1 cells and weak staining in Daudi cells (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Low expression: Daudi. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

-ve control 1: ab325970 at 1/50 dilution, followed by ab150120 at 1/1000 dilution.-ve control 2: ab7291 at 1/1000 dilution, followed by ab150081 at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Leptin Receptor antibody [EPR28292-590] (ab325970)

Leptin Receptor Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Leptin Receptor antibody

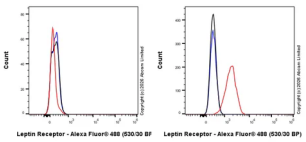
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HEK-293T cells(human embryonic kidney epithelial cell) transfected with an empty expression vector containing a myc-His-tag®;293T cells transfected with a human Leptin receptor protein expression

vector containing a myc-His-tag®. cells labelling Leptin Receptor with ab325970 at 1/100 (5.01 µg/ml) dilution , followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in 293T cells (shown in green) transfected with a human Leptin receptor protein expression vector containing a myc-His-tag®. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Flow Cytometry - Anti-Leptin Receptor antibody [EPR28292-590] (ab325970)

Leptin Receptor Flow Cytometry staining of TF-1 (human erythroleukemia erythroblast, Right) using rabbit Anti-Leptin Receptor antibody

Flow cytometric analysis of Daudi (human Burkitt's lymphoma lymphoblast, Left) TF-1 (human erythroleukemia erythroblast, Right) cells labelling Leptin Receptor with ab325970 at 1/50 dilution (1ug) / Red compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Low expression: Daudi.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.