abcam

ab133645

Anti-67kDa Laminin Receptor antibody [EPR8469]

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	EPR8469
Purification technique	Affinity purification Protein A
Concentration	0.188 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/100 - 1/250
Notes	-

Species	Rat

Dilution info	1/100 - 1/250
Notes	-

Species	Human
Dilution info	1/100 - 1/250
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000 - 1/10000
Notes	-

Species	Rat
Dilution info	1/1000 - 1/10000
Notes	-

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20 - 1/1000
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information RPSA

Function Required for the assembly and/or stability of the 40S ribosomal subunit. Required for the processing of the 20S rRNA-precursor to mature 18S rRNA in a late step of the maturation of 40S ribosomal subunits. Also functions as a cell surface receptor for laminin. Plays a role in cell adhesion to the basement membrane and in the consequent activation of signaling transduction pathways. May play a role in cell fate determination and tissue morphogenesis. Acts as a PPP1R16B-dependent

substrate of PPP1CA. (Microbial infection) Acts as a receptor for the Adeno-associated viruses 2,3,8 and 9. (Microbial infection) Acts as a receptor for the Dengue virus. (Microbial infection) Acts as a receptor for the Sindbis virus. (Microbial infection) Acts as a receptor for the Venezuelan equine encephalitis virus. (Microbial infection) Acts as a receptor for the pathogenic prion protein. (Microbial infection) Acts as a receptor for bacteria.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The 67kDa Laminin Receptor also known as the laminin binding protein or protein laminin functions as a receptor for laminin an important component of the extracellular matrix. This receptor is expressed in many tissue types serving an important mechanical role by mediating the adhesion and migration of cells. The receptor anchors cells to laminin molecules thereby influencing cell differentiation and proliferation. The molecular weight of the laminin receptor is approximately 67 kilodaltons which signifies it as a critical player in various cellular processes.

Biological function summary	This receptor engages in cellular interactions that are essential for maintaining the integrity and architecture of tissues. It often associates with other proteins to form complexes which further strengthen its functional capabilities. By anchoring laminin to the cell surface it regulates cell signaling pathways that influence cell motility invasion and survival. These interactions suggest that the 67kDa Laminin Receptor's function goes beyond simple adhesion impacting cellular responsiveness to external matrix cues.
Pathways	The receptor influences the MAPK and PI3K/Akt signaling pathways which are significant in cell survival and proliferation. Through such pathways it interacts with numerous proteins including integrins and fibronectin receptors facilitating orchestrated cell signaling. This connectivity highlights the receptor's role in cellular communication networks contributing to dynamic processes like wound healing and angiogenesis.
Associated diseases and disorders	Aberrant expression of the 67kDa Laminin Receptor relates to conditions such as cancer and Alzheimer's disease. In cancer its overexpression links to increased tumor invasiveness likely due to enhanced cell motility mediated through integrin interactions. In Alzheimer's disease its relationship with amyloid precursor protein influences plaque formation exacerbating disease progression. Understanding these connections highlights potential therapeutic targets for disease intervention.

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

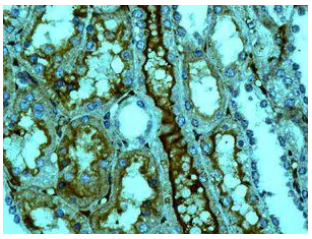
We do not recommend this combination. It is not covered by our product promise.

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.

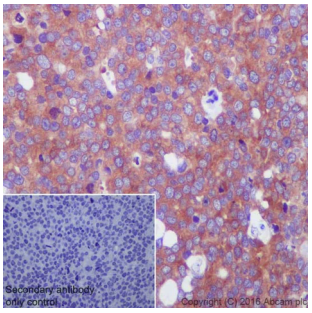
Full details and terms and conditions can be found here:
Terms & Conditions.

15 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

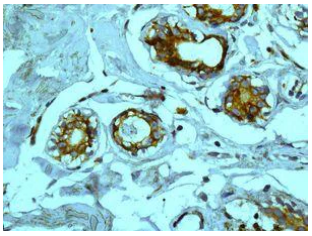
Immunohistochemical analysis of paraffin-embedded Human kidney tissue labellig 67kDa Laminin Receptor with ab133645 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-67kDa Laminin Receptor antibody

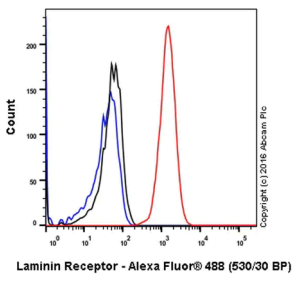
ab133645 staining 67kDa Laminin Receptor in human gastric carcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti-rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody at a dilution of 1/500.
Negative control 1: PBS in place of primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-67kDa Laminin Receptor antibody

Immunohistochemical analysis of paraffin-embedded Human breast tissue labelling 67kDa Laminin Receptor with ab133645 at 1/100 dilution.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



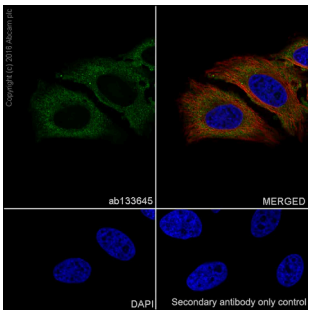
Flow Cytometry (Intracellular) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Flow Cytometry (Intracellular) staining using rabbit Anti-67kDa Laminin Receptor antibody

ab133645 staining 67kDa Laminin Receptor in the human cell line MCF7 (Human breast adenocarcinoma cell line) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/20.

A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)

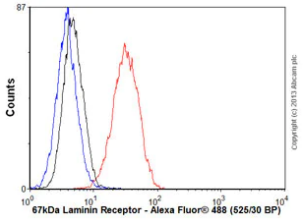
Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



Immunocytochemistry/ Immunofluorescence - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-67kDa Laminin Receptor antibody

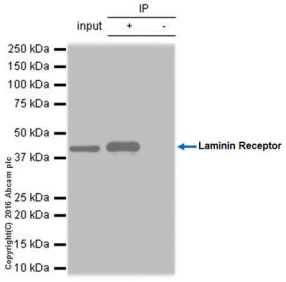
ab133645 staining 67kDa Laminin Receptor in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/250. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. ab195889 was used as a counterstain for primary antibody ab133645 at 1/2000. DAPI was used as a nuclear counterstain and PBS as a negative control.



Flow Cytometry (Intracellular) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Flow Cytometry (Intracellular) staining using rabbit Anti-67kDa Laminin Receptor antibody

Overlay histogram showing MCF7 cells stained with ab133645 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab133645, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in MCF7 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

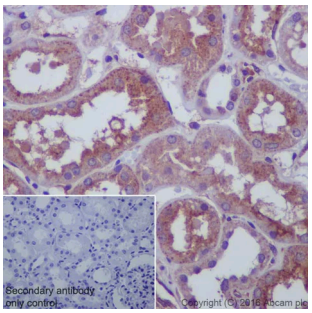


Immunoprecipitation - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

ab133645 immunoprecipitating 67kDa Laminin Receptor. 10µg of cell lysate was incubated with primary antibody at a dilution of 1/20 and VeriBlot for IP Detection Reagent (HRP) (ab131366) at a dilution of 1/1000.
Lane 1: K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate (10ug)
Lane 2: K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab133645 in K562(Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate

All lanes:
Immunoprecipitation - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

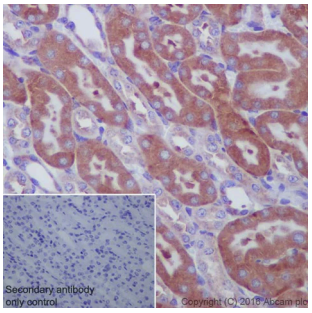
Predicted band size: 33 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-67kDa Laminin Receptor antibody

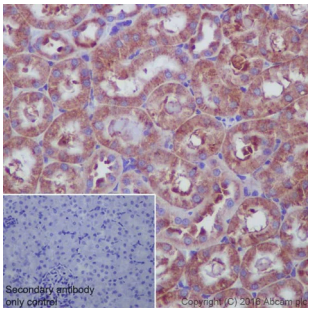
ab133645 staining Prohibitin in mouse kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti-rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody at a dilution of 1/500.
Negative control 1: PBS in place of primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-67kDa Laminin Receptor antibody

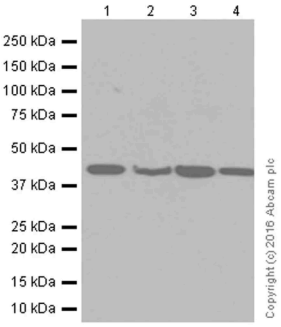
ab133645 staining 67kDa Laminin Receptor in mouse kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti-rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody at a dilution of 1/500.
Negative control 1: PBS in place of primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-67kDa Laminin Receptor antibody

ab133645 staining 67kDa Laminin Receptor in rat kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti-rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody at a dilution of 1/500.
Negative control 1: PBS in place of primary antibody.



Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Western blot staining using rabbit Anti-67kDa Laminin Receptor antibody

Diluting and blocking buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645) at 1/2000 dilution

Lane 1:
K562 (Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate at 20 µg

Lane 2:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

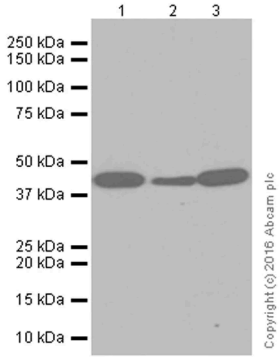
Lane 3:
HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate at 20 µg

Lane 4:
C6 (Rat glial tumor cell line) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 33 kDa



Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

Blocking and diluting buffer: 5% NFDM/TBST
All lanes:
Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645) at 1/10000 dilution

Lane 1:
RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate at 20 µg

Lane 2:
PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate at 20 µg

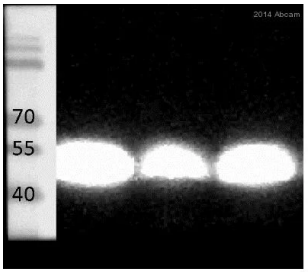
Lane 3:
NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 33 kDa, 54 kDa

Observed band size: 54 kDa



This image is courtesy of an anonymous customer review

Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

All lanes:
Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645) at 1/1000 dilution

All lanes:
Mouse intestinal mucosa whole tissue lysate at 30 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG polyclonal at 1/2500 dilution

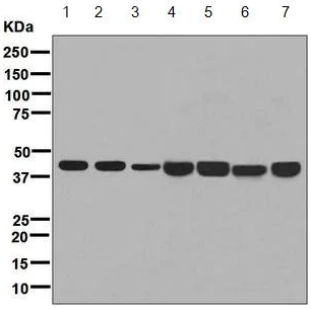
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 33 kDa

Observed band size: 55 kDa

Exposure time: 1min



Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

All lanes:
Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645) at 1/1000 dilution

Lane 1:
K562 cell lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Lane 3:
HepG2 cell lysate at 10 µg

Lane 4:
C6 cell lysate at 10 µg

Lane 5:
RAW 264.7 cell lysate at 10 µg

Lane 6:
PC-12 cell lysate at 10 µg

Lane 7:
NIH/3T3 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

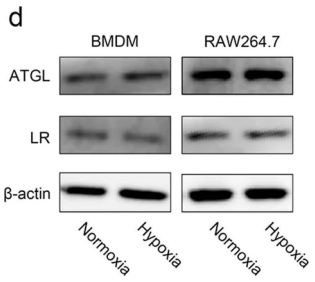


Image collected and cropped by CiteAb under a CC-BY license from the publication

Western blot - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

67kDa Laminin Receptor Western blot staining using rabbit Anti-67kDa Laminin Receptor antibody

67kDa Laminin Receptor western blot using anti-67kDa Laminin Receptor antibody [EPR8469] ab133645. Publication image and figure legend from Gao, S., Li, C., et al., 2017, Sci Rep, PubMed 28211523.

ab133645 was used in this publication in western blot. This may not be the same as the application(s) guaranteed by Abcam. For a full list of applications guaranteed by Abcam for ab133645 please see the product overview.

PEDF regulated hypoxia-induced macrophages polorization via ATGL.(a,b) Immunofluorescence analysis of ATGL and LR expression on macrophages of retinas in the OIR model by ATGL plus F4/80 (a) or LR plus F4/80 (b) staining. Scale bars represent 50 μm. (c) Immunofluorescence analysis of ATGL and LR expression in macrophage RAW264.7 and BMDMs with or without hypoxia treatment. Scale bars represent 10 μm. (d) Western blot analysis of ATGL and LR expression in macrophages RAW264.7 and BMDMs with or without hypoxia treatment. (e,f) Quantification of iNOS and Arg-1 expression in BMDMs induced by hypoxia prior to stimulation with PEDF and/or ATGL specific inhibitor BEL/ATGL selective inhibitor MAFP/LR antibody MluC5. ***$p < 0.001$, P values were analyzed by one-way ANOVA. All data are representative of three independent experiments and are means ± SEM.

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