abcam

Product datasheet

Anti-67kDa Laminin Receptor antibody [EPR8469] ab133645



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Overview

Product name Anti-67kDa Laminin Receptor antibody [EPR8469]

Description Rabbit monoclonal [EPR8469] to 67kDa Laminin Receptor

Host species Rabbit

Tested applications Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP

Species reactivity Reacts with: Mouse, Rat, Human

Immunogen Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

Positive control K562, HeLa, HepG2, C6, RAW 264.7, PC-12 and NIH/3T3 cell lysates; Human breast and kidney

tissues

General notes 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 production

For more information see here.

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

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)

Purity Protein A purified

ClonalityMonoclonalClone numberEPR8469

Isotype IgG

1

Applications

The Abpromise quarantee

Our <u>Abpromise guarantee</u> covers the use of ab133645 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
Flow Cyt (Intra)		1/20 - 1/1000. ab172730 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
WB	★★★★ (1)	1/1000 - 1/10000. Predicted molecular weight: 33 kDa.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.
IP		1/10 - 1/100.

Target

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. Also acts as a receptor for several other ligands, including the pathogenic prion protein, viruses, and bacteria.

Sequence similarities

Belongs to the ribosomal protein S2P family.

Post-translational modifications

Acylated. Acylation may be a prerequisite for conversion of the monomeric 37 kDa laminin receptor precursor (37LRP) to the mature dimeric 67 kDa laminin receptor (67LR), and may provide a mechanism for membrane association.

Cleaved by stromelysin-3 (ST3) at the cell surface. Cleavage by stromelysin-3 may be a

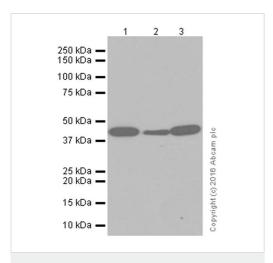
mechanism to alter cell-extracellular matrix interactions.

Cellular localization

Cell membrane. Cytoplasm. Nucleus. 67LR is found at the surface of the plasma membrane, with its C-terminal laminin-binding domain accessible to extracellular ligands. 37LRP is found at the cell surface, in the cytoplasm and in the nucleus (By similarity). Co-localizes with PPP1R16B in

the cell membrane.

Images



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

All lanes : 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

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

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

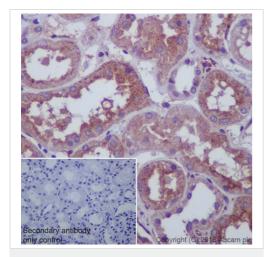
Lysates/proteins at 20 µg per lane.

Secondary

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

Predicted band size: 33 kDa

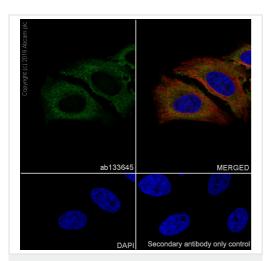
Blocking and diluting buffer: 5% NFDM/TBST



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

ab133645 staining Prohibitin in mouse kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffinembedded 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) <u>ab97051</u> was used as the secondary antibody at a dilution of 1/500.

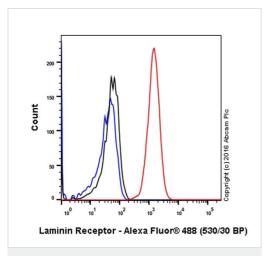
Negative control 1: PBS in place of primary antibody.



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

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.

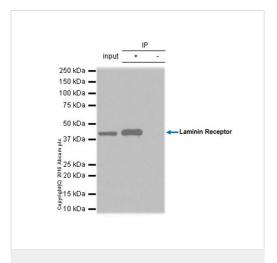


Flow Cytometry (Intracellular) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

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 lgG (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)



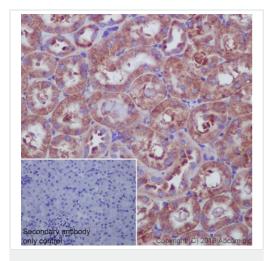
Immunoprecipitation - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645)

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

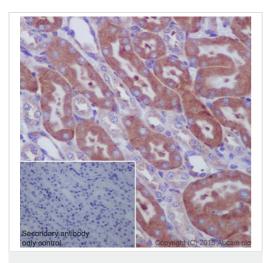
Lane 3: Rabbit monoclonal IgG (<u>ab172730</u>) instead of ab133645 in K562(Human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate



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

ab133645 staining 67kDa Laminin Receptor in rat kidney tissue sections by Immunohistochemistry (IHC-P - paraformaldehydefixed, 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) <u>ab97051</u> was used as the secondary antibody at a dilution of 1/500.

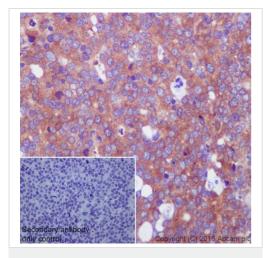
Negative control 1: PBS in place of primary antibody.



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

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.

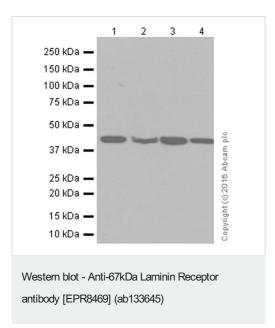
Negative control 1: PBS in place of primary antibody.



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

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.



All lanes : 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

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

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

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

Lysates/proteins at 20 µg per lane.

Secondary

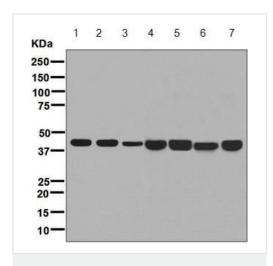
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 33 kDa

87 10³ 10³ 10³ 10³ 10³ 10³ 10³ 10³ 10³ 10⁴ 10³ 10⁴ 1

Flow Cytometry (Intracellular) - Anti-67kDa Laminin Receptor antibody [EPR8469] (ab133645) Diluting and blocking buffer: 5% NFDM/TBST

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/1x10⁶ 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.



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

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

Lane 1 : K562 cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : HepG2 cell lysate
Lane 4 : C6 cell lysate

Lane 5: RAW 264.7 cell lysate

Lane 6 : PC-12 cell lysate

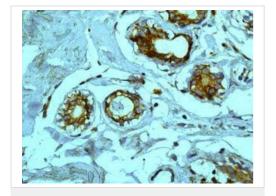
Lane 7 : NIH/3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

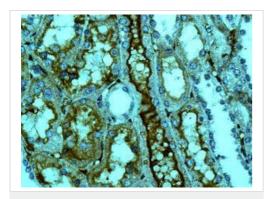
Predicted band size: 33 kDa



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

Immunohistochemical analysis of paraffin-embedded Human breast tissue labelling 67kDa Laminin Receptor with ab133645 at 1/100 dilution

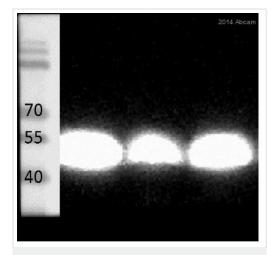
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded 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.



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

This image is courtesy of an anonymous Abreview

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

All lanes: Mouse intestinal mucosa whole tissue lysate

Lysates/proteins at 30 µg per lane.

Secondary

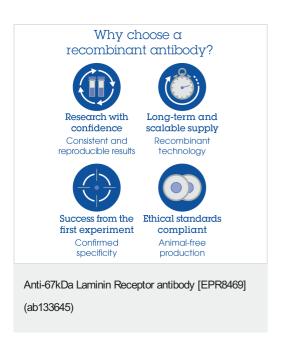
All lanes : HRP-conjugated goat anti-rabbit lgG polyclonal at 1/2500 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 33 kDa **Observed band size:** 55 kDa

Exposure time: 1 minute



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