abcam

ab233389

Anti-Laminin gamma 1 antibody [EPR21199]

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	EPR21199
Purification technique	Affinity purification Protein A
Concentration	0.53 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	-

Species	Rat
Dilution info	1/2000
Notes	-

Species	Human
Dilution info	1/2000
Notes	-

Target data

See full target information LAMC1

Function	Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting with other extracellular matrix components. As a subunit of laminin-1 (also known as laminin-111 or EHS laminin), it is involved in the stimulation of agrin-induced receptor clustering through a MuSK-independent pathway.

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.

Supplementary info

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

Activity summary	Laminin gamma 1 also known as laminin-1 is an important component of the extracellular matrix. This protein has a molecular weight of about 200 kDa and is widely expressed in various tissues including epithelial and endothelial cells. Laminin gamma 1 is part of the larger laminin protein family which plays a significant role in the structural integrity of tissues. It primarily partners with other laminin chains to form a heterotrimeric complex that provides foundational support for cellular structures.
Biological function summary	Laminin gamma 1 contributes to cell adhesion differentiation and migration. It belongs to the laminin-1 complex serving as a scaffold for cells to interact with each other and with the extracellular matrix. This interaction facilitates cell signaling processes that influence cellular behavior. Additionally the laminin iHC (immunohistochemistry) technique often utilizes laminin gamma 1 to study cell-matrix interactions due to its involvement in these critical biological activities.
Pathways	Laminin gamma 1 is integral to basement membrane assembly and epithelial morphogenesis pathways. These pathways incorporate other key proteins such as integrins which mediate cell attachment to the laminin matrix. The pathway interactions involving laminin gamma 1 allow cells to respond effectively to mechanical and chemical stimuli thereby maintaining tissue homeostasis and promoting regenerative processes after injury.
Associated diseases and disorders	Abnormalities in laminin gamma 1 expression or function associate with conditions like muscular dystrophy and certain cancers. Mutations affecting this protein can lead to compromised structural integrity and impaired cellular communication. In muscular dystrophy its relationship with proteins such as dystroglycan highlights the disruption in muscle cell adhesion and signaling. Similarly in cancer altered laminin gamma 1 expression affects tumor cell invasion and metastasis involving interactions with proteins such as matrix metalloproteinases (MMPs) which regulate extracellular matrix remodeling.

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.

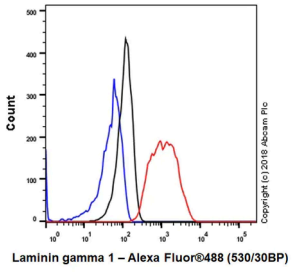
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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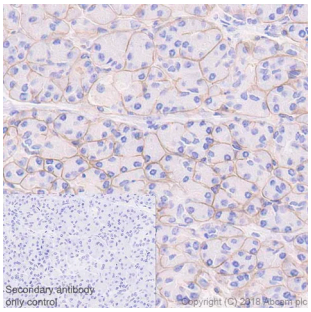
7 product images



Flow Cytometry (Intracellular) - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Laminin gamma 1 Flow Cytometry (Intracellular) staining using rabbit Anti-Laminin gamma 1 antibody

Intracellular flow cytometric analysis of4% paraformaldehyde-fixed, 90% methanol-permeabilized A431 (human epidermoid carcinoma cell line) cell line labeling Laminin gamma 1 with ab233389 at 1/50 (red) compared with Rabbit monoclonal IgG Isotype control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.

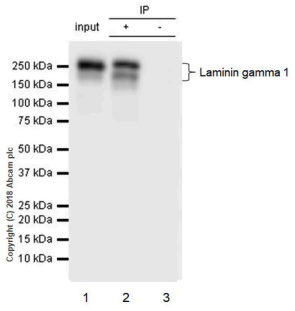


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Laminin gamma 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Laminin gamma 1 antibody

Immunohistochemical analysis of paraffin-embedded human pancreas tissue labeling Laminin gamma 1 with ab233389 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining in basement membrane of human pancreas (PMID: 15159456) is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat-mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunoprecipitation - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

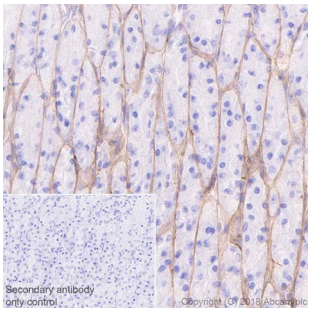
Laminin gamma 1 was immunoprecipitated from 0.35 mg of A431 (human epidermoid carcinoma cell line) whole cell lysate with ab233389 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab233389 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.
Lane 1: A431 whole lysate 10 µg (Input).
Lane 2: ab233389 IP in A431 whole cell lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab233389 in A431 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 15 seconds.

All lanes:
Immunoprecipitation - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Predicted band size: 178 kDa

Observed band size: 210-250 kDa

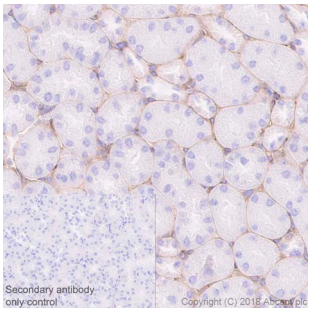


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Laminin gamma 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Laminin gamma 1 antibody

Immunohistochemical analysis of paraffin-embedded rat stomach tissue labeling Laminin gamma 1 with ab233389 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining in basement membrane of rat stomach (PMID: 12571278) is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

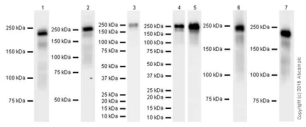
Perform heat-mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Laminin gamma 1 with ab233389 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining in the basement membrane of mouse kidney (PMID: 21903675) is observed. Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Perform heat-mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure times.

Lanes 1, 2 & 7: 15 seconds. Lane 3: 8 seconds. Lanes 4: 37 seconds. Lanes 5 & 6: 10 seconds.

The expression profile observed is consistent with what has been described in the literature (PMID: 18263645, 11067943, 23857767, 28928891).

Lanes 1, 2, 3, 6 and 7:
Western blot - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389) at 1/5000 dilution

Lanes 4 - 5:
Western blot - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389) at 1/1000 dilution

Lane 1:
A431 (human epidermoid carcinoma cell line) whole cell lysate at 10 µg

Lane 2:
NIH:OVCAR-3 (human ovary adenocarcinoma cell line) whole cell lysate at 10 µg

Lane 3:
HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 10 µg

Lane 4:
MCF7 (human breast adenocarcinoma cell line) whole cell lysate at 10 µg

Lane 5:
A549 (human lung carcinoma cell line) whole cell lysate at 10 µg

Lane 6:
Human fetal heart lysate at 10 µg

Lane 7:
Human fetal kidney lysate at 10 µg

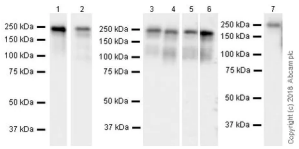
Secondary

Lanes 1 - 5:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lanes 6 - 7:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/4000 dilution

Predicted band size: 178 kDa

Observed band size: 210-250 kDa



Western blot - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389)

Laminin gamma 1 Western blot staining using rabbit Anti-Laminin gamma 1 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure times.

Lane 1: 70 seconds. Lane 2: 15 seconds. Lanes 3 & 4: 10 seconds. Lanes 5 & 6: 3 minutes. Lane 7: 48 seconds.

The expression profile observed is consistent with what has been described in the literature (PMID: 18263645, 11067943, 23857767, 28928891).

All lanes:
Western blot - Anti-Laminin gamma 1 antibody [EPR21199] (ab233389) at 1/5000 dilution

Lane 1:
C6 (rat glial tumor glial cell line) whole cell lysate at 10 µg

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

Lane 3:
Rat heart lysate at 10 µg

Lane 4:
Rat kidney lysate at 10 µg

Lane 5:
Rat brain lysate at 10 µg

Lane 6:
Rat spleen lysate at 10 µg

Lane 7:
Mouse brain lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 178 kDa

Observed band size: 210-250 kDa

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