abcam

ab274376

Anti-LAMC2 antibody [EPR23654-127]

Anti-LAMC2 antibody [EPR23654-127] (ab274376) is a rabbit monoclonal antibody detecting LAMC2 in **Western Blot, Flow Cytometry (Intra), IP, ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency

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	EPR23654-127
Purification technique	Affinity purification Protein A
Concentration	0.49 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/100

Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information LAMC2

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. Ladsin exerts cell-scattering activity toward a wide variety of cells, including epithelial, endothelial, and fibroblastic cells.

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

What is this antibody validated in?
Anti-LAMC2 antibody [EPR23654-127] (ab274376) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of LAMC2?
Anti-LAMC2 [EPR23654-127] (ab274376) specifically detects a band for LAMC2 (UniProt: Q13753) at a molecular weight of 131kDa.

Other related products
We have a range of other formats of antibody clone [EPR23654-127] also available for your convenience: ab274376, Carrier free - ab274384

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

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

Activity summary	The LAMC2 protein also known as laminin subunit gamma-2 is an essential component of the extracellular matrix. It is a subunit of the laminin-332 complex formerly referred to as laminin-5 and has an approximate mass of 160 kDa. LAMC2 is widely expressed in various tissues most prominently in epithelial tissues. It

	localizes at the basement membrane zone where epithelial and mesenchymal tissues meet.
Biological function summary	LAMC2 plays a critical role in cell adhesion migration and signal transduction. Laminin-332 which includes LAMC2 binds to integrin receptors on cell surfaces facilitating cell-matrix interactions and communication. This complex is important for basement membrane stability and tissue organization and it is actively involved in wound healing by promoting keratinocyte migration and melanin transport.
Pathways	LAMC2 integrates into several important extracellular matrix pathways including the integrin signaling pathway. These pathways involve interactions with proteins like integrin alpha-6/beta-4 which are linked to cellular adhesion and mobility. LAMC2 also contributes to epithelial cell functions and is involved in the PI3K/AKT signaling pathway highlighting its importance in cell proliferation and survival.
Associated diseases and disorders	LAMC2 has significant associations with conditions like dystrophic epidermolysis bullosa and invasive carcinomas. In dystrophic epidermolysis bullosa mutations in LAMC2 disrupt the integrity of the basement membrane leading to fragile skin and blistering. In cancer abnormal expression or alteration of LAMC2 can promote tumor invasion and metastasis often in conjunction with overexpression of matrix metalloproteinases (MMPs) that degrade the extracellular matrix therefore facilitating cancer cell infiltration.

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

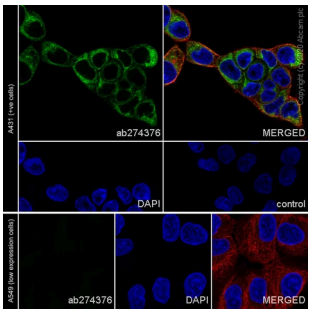
We do not recommend this combination. It is not covered by our product promise.

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.

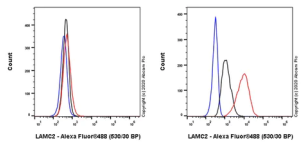
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-LAMC2 antibody [EPR23654-127] (ab274376)

LAMC2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LAMC2 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized A431 cells labelling LAMC2 with ab274376 at 1/100 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in A431 cell line. **Low expression control:** A549 (PMID: 25591736). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-LAMC2 antibody [EPR23654-127] (ab274376)

LAMC2 Flow Cytometry (Intracellular) staining using rabbit Anti-LAMC2 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized A549 (Human lung carcinoma epithelial cell) (Left) A431 (Human epidermoid carcinoma epithelial cell) (Right) cells labelling LAMC2 with ab274376 at 1/500 dilution (0.1ug) (Red) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).
A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Low expression control: A549.



Immunoprecipitation - Anti-LAMC2 antibody [EPR23654-127] (ab274376)

LAMC2 was immunoprecipitated from 0.35 mg A431 (human epidermoid carcinoma epithelial cell), whole cell lysate with ab274376 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab274376 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: A431 (human epidermoid carcinoma epithelial cell), whole cell lysate 10 ug

Lane 2: ab274376 IP in A431 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab274376 in A431 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 41 seconds

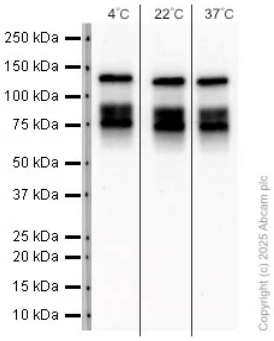
Band of 140KDa represents the full length form, Bands of 100KDa and 80KDa represent the endogenously cleaved form.

The expression profile observed is consistent with what has been described in the literature (PMID: 21829200).

All lanes:
Immunoprecipitation - Anti-LAMC2 antibody [EPR23654-127] (ab274376)

Predicted band size: 131 kDa

Observed band size: 100 kDa, 140 kDa, 80 kDa



Western blot - Anti-LAMC2 antibody [EPR23654-127] (ab274376)

LAMC2 Western blot staining of A431 whole cell lysate using rabbit Anti-LAMC2 antibody

This blot was produced using 4-20% SDS-PAGE containing 15 µg of A431 whole cell lysate per lane at 150V for 1hr before being transferred onto a 0.45 µm PVDF membrane at 75V for 1hr. The membrane was then blocked for 1hr using 5% NFDM/TBST, then incubated with ab274376 (1/1000) at room temperature for 1hr. After being washed three times in TBST, the membrane was incubated with Peroxidase conjugated goat anti-rabbit IgG (H+L) (ab97051) at 1/100,000 for 1hr at room temperature. The membrane was washed three times again. Then the signal was developed using the ECL technique.

ab274376 was stored at a range of temperatures (+4°C, +22°C, +37°C) for 1 week before being tested in WB. The image shows the band intensity remains relatively constant for temperatures ranging between 4°C, 22°C and 37°C, demonstrating that antibody activity is not affected under these conditions. This data was generated as part of a structured antibody stability study supporting Abcam’ s transition from cold⊠chain to ambient shipping.

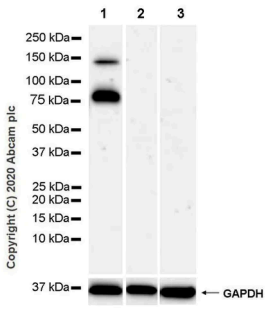
All lanes:
Western blot - Anti-LAMC2 antibody [EPR23654-127] (ab274376) at 1/1000 dilution

All lanes:
A431 whole cell lysate at 15 µg with NDFM/TBST

Secondary

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

Exposure time: 100s



Western blot - Anti-LAMC2 antibody [EPR23654-127] (ab274376)

LAMC2 Western blot staining using rabbit Anti-LAMC2 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
Bands of 140KDa and 80KDa respectively represent the full length and endogenously cleaved form.

The expression profile observed is consistent with what has been described in the literature (PMID: 25591736, 21829200).

Low expression: A549 (PMID:25591736) and WI-38 (PMID: 10964684)

Expsure time: 3 minutes

All lanes:
Western blot - Anti-LAMC2 antibody [EPR23654-127] (ab274376) at 1/1000 dilution

Lane 1:

A431 (human epidermoid carcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2:
A549 (human lung carcinoma epithelial cell), whole cell lysate at 20 µg

Lane 3:
WI-38 (human fetal lung fibroblast), whole cell lysate at 20 µg

Secondary

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

Predicted band size: 131 kDa

Observed band size: 140 kDa, 80 kDa

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