Anti-LAMC2 Antibody [PSH07-27]

HA722815

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC, IP
Molecular Wt:	Predicted band size: 131 kDa
Clone number:	PSH07-27

Description: Laminin subunit gamma-2 is a protein that in humans is encoded by the LAMC2 gene. Laminins, a family of extracellular matrix glycoproteins, are the major noncollagenous constituent of basement membranes. They have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Laminins are composed of 3 non identical chains: laminin alpha, beta and gamma (formerly A, B1, and B2, respectively) and they form a cruciform structure consisting of 3 short arms, each formed by a different chain, and a long arm composed of all 3 chains. Each laminin chain is a multidomain protein encoded by a distinct gene.

Immunogen: Recombinant protein within human LAMC2 aa 550-1,193.

Positive control: A431 cell lysate, A549 cell lysate, HaCaT cell lysate, NCI-H441 cell lysate, Mouse skin tissue lysate, Mouse stomach tissue lysate, Rat skin tissue lysate, Rat stomach tissue lysate, human colon tissue, mouse colon tissue, rat colon tissue, A431.

Subcellular location: Secreted, extracellular space, extracellular matrix, basement membrane.

Database links: SwissProt: Q13753 Human | Q61092 Mouse
Entrez Gene: 192362 Rat

Recommended Dilutions:

WB	1:5,000
IF-Cell	1:100
IHC-P	1:200
FC	1:5,000
IP	1-2μg/sample

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

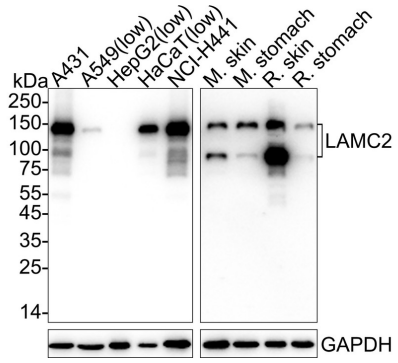

Fig1: Western blot analysis of LAMC2 on different lysates with Rabbit anti-LAMC2 antibody (HA722815) at 1/5,000 dilution.

Lane 1: A431 cell lysate (20 µg/Lane)
Lane 2: A549 cell lysate (low expression) (20 µg/Lane)
Lane 3: HepG2 cell lysate (low expression) (20 µg/Lane)
Lane 4: HaCaT cell lysate (low expression) (20 µg/Lane)
Lane 5: NCI-H441 cell lysate (20 µg/Lane)
Lane 6: Mouse skin tissue lysate (40 µg/Lane)
Lane 7: Mouse stomach tissue lysate (40 µg/Lane)
Lane 8: Rat skin tissue lysate (40 µg/Lane)
Lane 9: Rat stomach tissue lysate (40 µg/Lane)

Predicted band size: 131 kDa
Observed band size: 100/140 kDa

Exposure time: 2 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722815) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

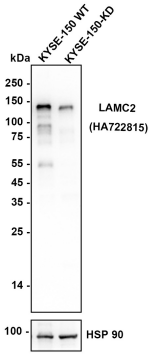

Fig2: Western blot analysis of LAMC2 on different lysates with Rabbit anti-LAMC2 antibody (HA722815) at 1/5,000 dilution.

Lane 1: KYSE-150-parental cell lysate
Lane 2: KYSE-150-LAMC2 KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 140/90 kDa
Observed band size: 140/90 kDa

Exposure time: 15 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722815)) at 1/5,000 dilution was used in primary antibody dilution (K1803) at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

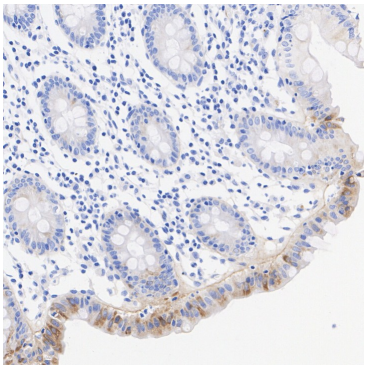

Fig3: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-LAMC2 antibody (HA722815) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722815) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

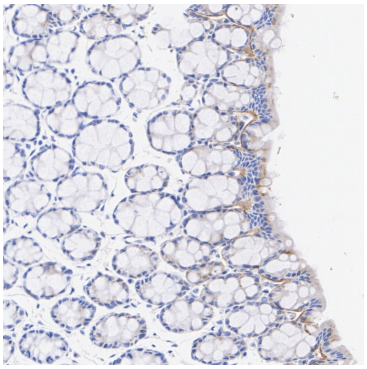

Fig4: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-LAMC2 antibody (HA722815) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722815) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

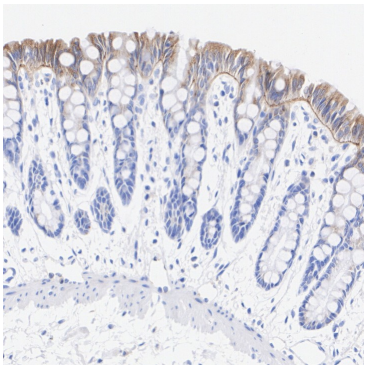

Fig5: Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rabbit anti-LAMC2 antibody (HA722815) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA722815) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

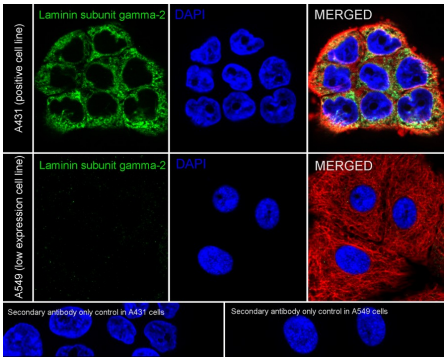

Fig6: Immunocytochemistry analysis of A431 (positive) and A549 (low expression) labeling LAMC2 with Rabbit anti-LAMC2 antibody (HA722815) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-LAMC2 antibody (HA722815) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

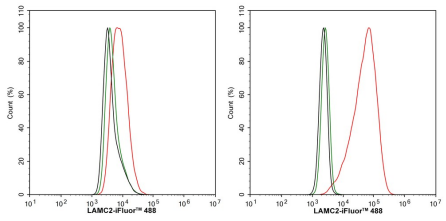

Fig7: Flow cytometric analysis of A549 (left, low expression) and A431 (right, positive) cells labeling LAMC2.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA722815, 1/5,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

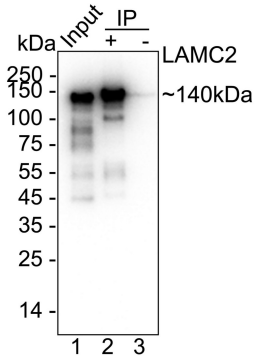

Fig8: LAMC2 was immunoprecipitated from 0.2 mg A431 cell lysate with HA722815 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA722815 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: A431 cell lysate (input)
Lane 2: HA722815 IP in A431 cell lysate
Lane 3: Rabbit IgG instead of HA722815 in A431 cell lysate

Blocking/Dilution buffer: primary antibody dilution (K1803)
Exposure time: 2 seconds; ECL: K1801

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Cave DD et al. LAMC2 marks a tumor-initiating cell population with an aggressive signature in pancreatic cancer. J Exp Clin Cancer Res. 2022 Oct
2. Erice O et al. LAMC2 Regulates Key Transcriptional and Targetable Effectors to Support Pancreatic Cancer Growth. Clin Cancer Res. 2023 Mar