Anti-LIMPII Antibody [PSH03-25] - BSA and Azide free

HA750865

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat, Monkey
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	PSH03-25

Description: Lysosomal integral membrane protein 2 (LIMP-2) is a protein that in humans is encoded by the SCARB2 gene. LIMP-2 is expressed in brain, heart, liver, lung and kidney, mainly in the membrane of lysosome organelles; however, in cardiac muscle, LIMP-2 is also expressed at intercalated discs. LIMP-2 in a membrane protein in lysosomes that functions to regulate lysosomal/endosomal transport. Mutations in LIMP-2 have been shown to cause Gaucher disease, myoclonic epilepsy, and action myoclonus–renal failure syndrome. Abnormal levels of LIMP-2 have also been found in patients with hypertrophic cardiomyopathy.

Immunogen: Recombinant protein within human LIMPII aa 5-459 / 478.

Positive control: HeLa cell lysate, HepG2 cell lysate, SH-SY5Y cell lysate, Neuro-2a cell lysate, MEF cell lysate, PC-12 cell lysate, COS-1 cell lysate, mouse kidney tissue lysate, rat kidney tissue lysate, mouse liver tissue lysate, rat liver tissue lysate, HeLa, U-87 MG cell lysate, human kidney tissue lysate, human liver tissue lysate, Neuro-2a, human kidney tissue, human liver tissue, mouse liver tissue, rat kidney tissue, rat liver tissue.

Subcellular location: Lysosome membrane.

Database links: SwissProt: Q14108 Human | O35114 Mouse | P27615 Rat

Recommended Dilutions:

WB	1:2,000-1:5,000
IHC-P	1:10,000
IF-Cell	1:200

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

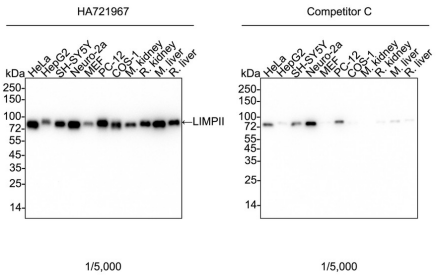

Fig1: Western blot analysis of LIMPII on different lysates with Rabbit anti-LIMPII antibody (HA750865) at 1/5,000 dilution and competitor's antibody at 1/5,000 dilution.

Lane 1: HeLa cell lysate (15 µg/Lane)
Lane 2: HepG2 cell lysate (15 µg/Lane)
Lane 3: SH-SY5Y cell lysate (15 µg/Lane)
Lane 4: Neuro-2a cell lysate (15 µg/Lane)
Lane 5: MEF cell lysate (15 µg/Lane)
Lane 6: PC-12 cell lysate (15 µg/Lane)
Lane 7: COS-1 cell lysate (15 µg/Lane)
Lane 8: Mouse kidney tissue lysate (30 µg/Lane)
Lane 9: Rat kidney tissue lysate (30 µg/Lane)
Lane 10: Mouse liver tissue lysate (30 µg/Lane)
Lane 11: Rat liver tissue lysate (30 µg/Lane)

Predicted band size: 54 kDa
Observed band size: 80 kDa

Exposure time: 30 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 (HA750865) at 1/5,000 dilution and competitor's antibody at 1/5,000 dilution were 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.

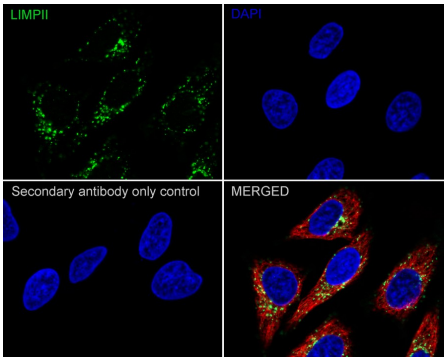

Fig2: Immunocytochemistry analysis of HeLa cells labeling LIMPII with Rabbit anti-LIMPII antibody (HA750865) at 1/200 dilution.

Cells were fixed in 100% precooled methanol 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-LIMPII antibody (HA750865) at 1/200 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.

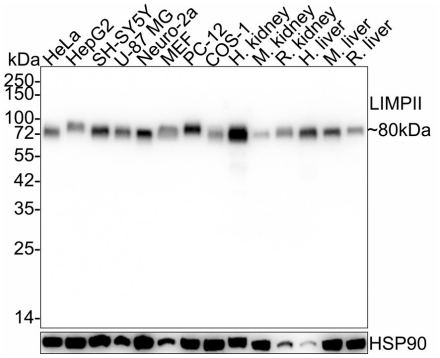

Fig3: Western blot analysis of LIMPII on different lysates with Rabbit anti-LIMPII antibody (HA750865) at 1/2,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: HepG2 cell lysate (20 µg/Lane)
Lane 3: SH-SY5Y cell lysate (20 µg/Lane)
Lane 4: U-87 MG cell lysate (20 µg/Lane)
Lane 5: Neuro-2a cell lysate (20 µg/Lane)
Lane 6: MEF cell lysate (20 µg/Lane)
Lane 7: PC-12 cell lysate (20 µg/Lane)
Lane 8: COS-1 cell lysate (20 µg/Lane)
Lane 9: Human kidney tissue lysate (40 µg/Lane)
Lane 10: Mouse kidney tissue lysate (40 µg/Lane)
Lane 11: Rat kidney tissue lysate (40 µg/Lane)
Lane 12: Human liver tissue lysate (40 µg/Lane)
Lane 13: Mouse liver tissue lysate (40 µg/Lane)
Lane 14: Rat liver tissue lysate (40 µg/Lane)

Predicted band size: 54 kDa
Observed band size: 80 kDa

Exposure time: 5 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 (HA750865) at 1/2,000 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.

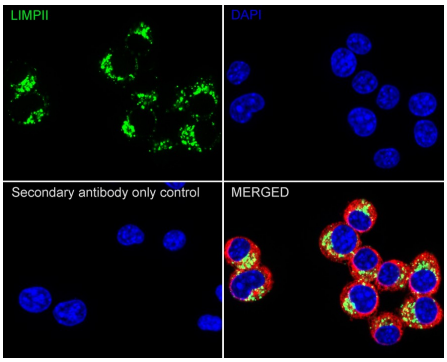

Fig4: Immunocytochemistry analysis of Neuro-2a cells labeling LIMPII with Rabbit anti-LIMPII antibody (HA750865) at 1/200 dilution.

Cells were fixed in 100% precooled methanol 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-LIMPII antibody (HA750865) at 1/200 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.

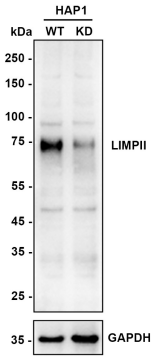

Fig5: Western blot analysis of LIMPII on different lysates with Rabbit anti-LIMPII antibody (HA750865) at 1/10,000 dilution.

Lane 1: HAP1-parental cell lysate
Lane 2: HAP1-LIMPII KD cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 54 kDa
Observed band size: 75 kDa

Exposure time: 3 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 (HA750865) at 1/10,000 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.

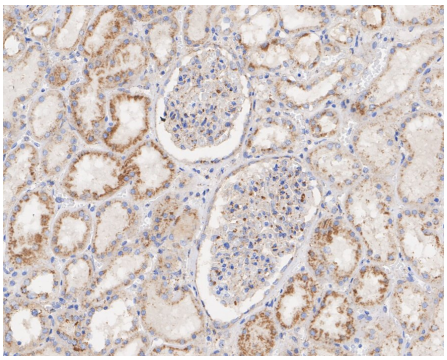

Fig6: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-LIMPII antibody (HA750865) at 1/10,000 dilution.

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 (HA750865) at 1/10,000 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.

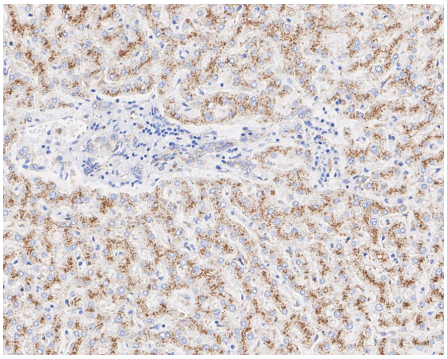

Fig7: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-LIMPII antibody (HA750865) at 1/10,000 dilution.

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 (HA750865) at 1/10,000 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.

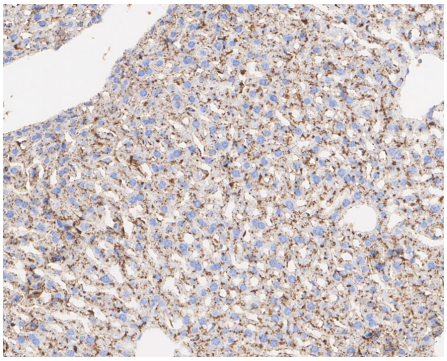

Fig8: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Rabbit anti-LIMPII antibody (HA750865) at 1/10,000 dilution.

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 (HA750865) at 1/10,000 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.

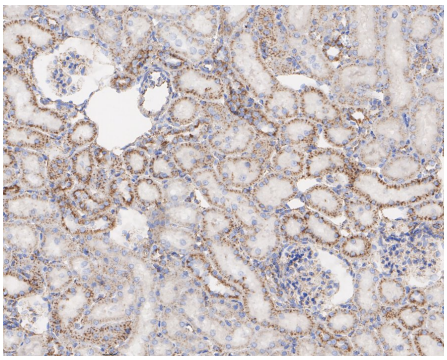

Fig9: Immunohistochemical analysis of paraffin-embedded rat kidney tissue with Rabbit anti-LIMPII antibody (HA750865) at 1/10,000 dilution.

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 (HA750865) at 1/10,000 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.

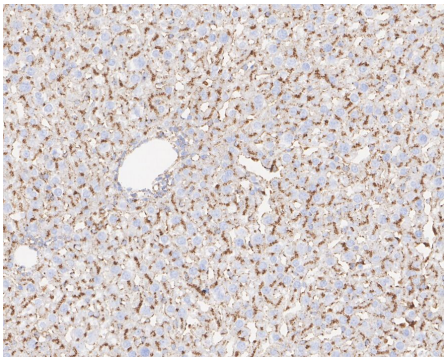

Fig10: Immunohistochemical analysis of paraffin-embedded rat liver tissue with Rabbit anti-LIMPII antibody (HA750865) at 1/10,000 dilution.

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 (HA750865) at 1/10,000 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.

Background References

1. Wang F et al. SCARB2 drives hepatocellular carcinoma tumor initiating cells via enhanced MYC transcriptional activity. Nat Commun. 2023 Sep
2. Quraishi IH et al. Miglustat Therapy for SCARB2-Associated Action Myoclonus-Renal Failure Syndrome. Neurol Genet. 2021 Jul