Anti-LAMP1 Antibody [PSH07-39]

HA722827

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, IHC-Fr, IP
Molecular Wt:	Predicted band size: 44 kDa
Clone number:	PSH07-39

Description: Lysosomal-associated membrane protein 1 (LAMP-1) also known as lysosome-associated membrane glycoprotein 1 and CD107a (Cluster of Differentiation 107a), is a protein that in humans is encoded by the LAMP1 gene. The human LAMP1 gene is located on the long arm (q) of chromosome 13 at region 3, band 4 (13q34). Lysosomal-associated membrane protein 1 is a glycoprotein from a family of Lysosome-associated membrane glycoproteins. The LAMP-1 glycoprotein is a type I transmembrane protein which is expressed at high or medium levels in at least 76 different normal tissue cell types. It resides primarily across lysosomal membranes, and functions to provide selectins with carbohydrate ligands. CD107a has also been shown to be a marker of degranulation on lymphocytes such as CD8+ and NK cells, and may also play a role in tumor cell differentiation and metastasis.

Immunogen: Synthetic peptide within mouse LAMP1 aa 371-406.

Positive control: Jurkat cell lysate, HEK-293 cell lysate, A431 cell lysate, MCF7 cell lysate, MDA-MB-231 cell lysate, HeLa cell lysate, NIH/3T3 cell lysate, C6 cell lysate, PC-12 cell lysate, human kidney tissue, mouse colon tissue, mouse kidney tissue, mouse testis tissue, rat kidney tissue.

Subcellular location: Lysosome membrane, Endosome membrane, Late endosome membrane, Cell membrane, Cytolytic granule membrane.

Database links: SwissProt: P11279 Human | P11438 Mouse | P14562 Rat

Recommended Dilutions:

WB	1:2,000-1:5,000
IHC-P	1:10,000
IF-Tissue	1:500-1:2,000
IHC-Fr	1:1,000
IP	1-2μg/sample

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

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

Purity: Protein A affinity purified.

Images

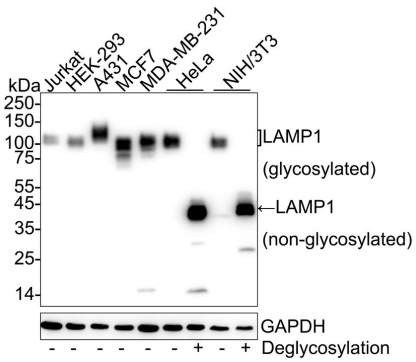

Fig1: Western blot analysis of LAMP1 on different lysates with Rabbit anti-LAMP1 antibody (HA722827) at 1/2,000 dilution.

Lane 1: Jurkat cell lysate
Lane 2: HEK-293 cell lysate
Lane 3: A431 cell lysate
Lane 4: MCF7 cell lysate
Lane 5: MDA-MB-231 cell lysate
Lane 6: HeLa cell lysate
Lane 7: HeLa cell lysate treated with deglycosylation
Lane 8: NIH/3T3 cell lysate
Lane 9: NIH/3T3 cell lysate treated with deglycosylation

Lysates/proteins at 20 µg/Lane.

Predicted band size: 44 kDa
Observed band size: 120/44 kDa

Exposure time: 21 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 (HA722827) 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.

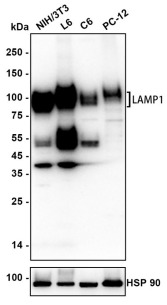

Fig2: Western blot analysis of LAMP1 on different lysates with Rabbit anti-LAMP1 antibody (HA722827) at 1/2,000 dilution.

Lane 1: NIH/3T3 cell lysate
Lane 2: L6 cell lysate
Lane 1: C6 cell lysate
Lane 2: PC-12 cell lysate

Lysates/proteins at 15 µg/Lane.

Predicted band size: 44 kDa
Observed band size: 100 kDa

Exposure time: 42 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 (HA722827) 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

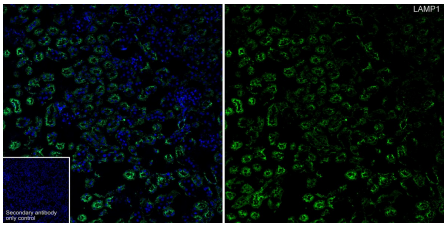

Fig3: Application: IHC-Fr

Species: Mouse

Site: Kidney

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

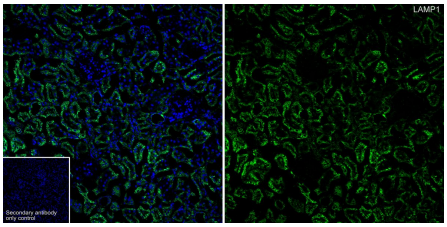

Fig4: Application: IHC-Fr

Species: Rat

Site: Kidney

Sample: Frozen section

Antibody concentration: 1/1,000

Antigen retrieval: The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for about 2 minutes in microwave oven.

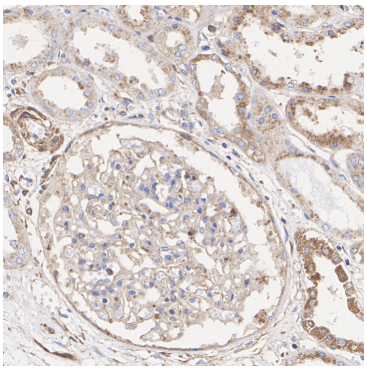

Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-LAMP1 antibody (HA722827) at 1/10,000 dilution.

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 (HA722827) 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.

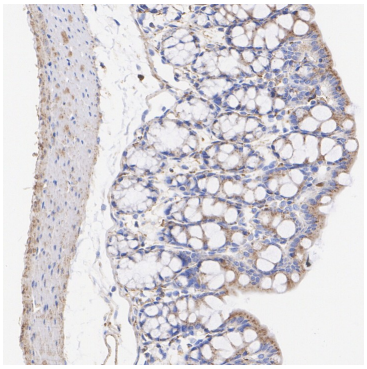

Fig6: Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-LAMP1 antibody (HA722827) at 1/10,000 dilution.

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 (HA722827) 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.

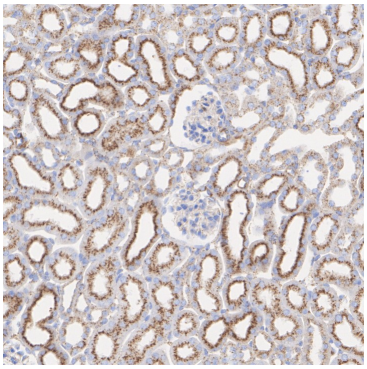

Fig7: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue with Rabbit anti-LAMP1 antibody (HA722827) at 1/10,000 dilution.

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 (HA722827) 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.

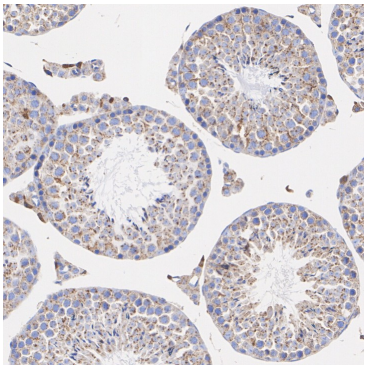

Fig8: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-LAMP1 antibody (HA722827) at 1/10,000 dilution.

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 (HA722827) 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.

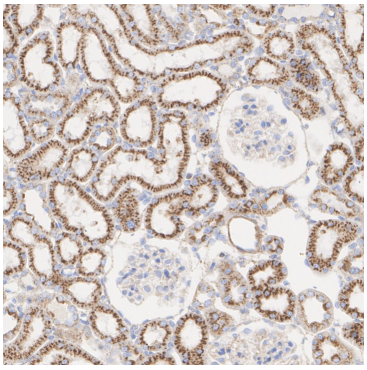

Fig9: Immunohistochemical analysis of paraffin-embedded rat kidney tissue with Rabbit anti-LAMP1 antibody (HA722827) at 1/10,000 dilution.

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 (HA722827) 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.

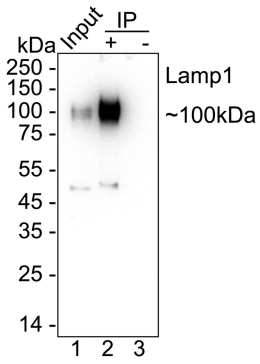

Fig10: LAMP1 was immunoprecipitated from 0.2 mg HeLa cell lysate with HA722827 at 2 µg/10 µl beads. Western blot was performed from the immunoprecipitate using HA722827 at 1/1,000 dilution. HRP Conjugated Anti-Rabbit IgG for IP Nano-secondary antibody at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: HeLa cell lysate (input)
Lane 2: HA722827 IP in HeLa cell lysate
Lane 3: Rabbit IgG instead of HA722827 in HeLa cell lysate

Blocking/Dilution buffer: 5% NFDM/TBST
Exposure time: 10 seconds; ECL: K1801

Background References

1. Chaudhry N et al. Lamp1 mediates lipid transport, but is dispensable for autophagy in Drosophila. Autophagy. 2022 Oct
2. Sanmarco LM et al. Gut-licensed IFNgamma(+) NK cells drive LAMP1(+)TRAIL(+) anti-inflammatory astrocytes. Nature. 2021 Feb