# Anti-LAMP1 Antibody [JJ0940]

## ET1701-94

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| **Product Type:** | Recombinant Rabbit monoclonal IgG, primary antibodies |
| **Species reactivity:** | Human |
| **Applications:** | WB, IHC-P, IF-Tissue |
| **Molecular Wt:** | Predicted band size: 45 kDa |
| **Clone number:** | JJ0940 |

**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).Immunofluorescence staining of HeLa Cells with antibody to reveal lysosomal LAMP1 in red and vimentin containing intermediate filaments in green. Nuclear DNA is seen in blue. Antibodies and image courtesy EnCor Biotechnology Inc.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:** Recombinant protein within Human LAMP1 aa 84-206 / 417.

**Positive control:** HeLa cell lysate, Jurkat cell lysate, HepG2 cell lysate, HUVEC cell lysate, human kidney tissue lysate, human kidney tissue.

**Subcellular location:** Cell membrane, Endosome membrane, Lysosome membrane, Late endosome.

**Database links:** SwissProt: P11279 Human

**Recommended Dilutions:**

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| **WB** | 1:1,000-1:5,000 |
| **IHC-P** | 1:5,000 |
| **IF-Tissue** | 1:200-1:1,000 |

**Storage Buffer:** 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

## Images

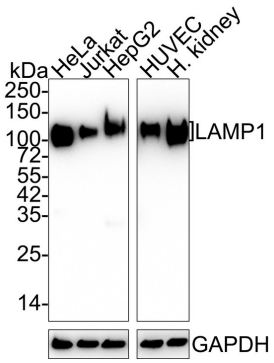


**Fig1:** Western blot analysis of LAMP1 on different lysates with Rabbit anti-LAMP1 antibody (ET1701-94) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: Jurkat cell lysate (20 µg/Lane)
Lane 3: HepG2 cell lysate (20 µg/Lane)
Lane 4: HUVEC cell lysate (20 µg/Lane)
Lane 5: Human kidney tissue lysate (40 µg/Lane)

Predicted band size: 45 kDa
Observed band size: 100-120 kDa

Exposure time: 1 minute 2 seconds;

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 (ET1701-94) at 1/1,000 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.

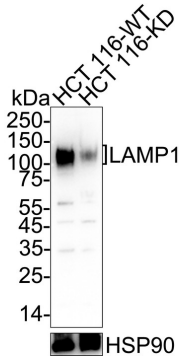


**Fig2:** Western blot analysis of LAMP1 on different lysates with Rabbit anti-LAMP1 antibody (ET1701-94) at 1/1,000 dilution.

Lane 1: HCT 116-si NT cell lysate
Lane 2: HCT 116-si LAMP1 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 45 kDa
Observed band size: 100-120 kDa

Exposure time: 20 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 (ET1701-94) at 1/1,000 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.

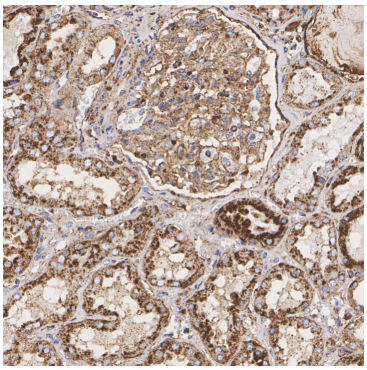

**Fig3:** Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-LAMP1 antibody (ET1701-94) at 1/5,000 dilution.

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 dd$H_2O$ and PBS, and then probed with the primary antibody (ET1701-94) at 1/5,000 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.

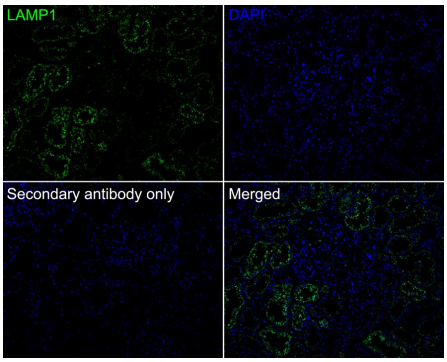


**Fig4:** Immunofluorescence analysis of paraffin-embedded human kidney tissue labeling LAMP1 with Rabbit anti-LAMP1 antibody (ET1701-94) at 1/200 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1701-94, green) at 1/200 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

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

## Background References

1. Vural A et al. Activator of G-Protein Signaling 3-Induced Lysosomal Biogenesis Limits Macrophage Intracellular Bacterial Infection. J Immunol 196:846-56 (2016).
2. Rebsamen M et al. SLC38A9 is a component of the lysosomal amino acid sensing machinery that controls mTORC1. Nature 519:477-81 (2015).