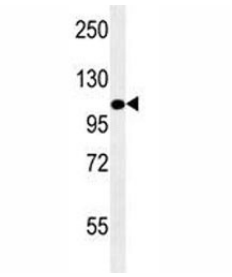
LAMP2 Antibody / CD107b Antibody [clone 157CT16.6.6] (F40228)

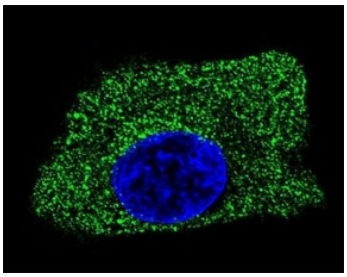
Catalog No.	Formulation	Size
F40228-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F40228-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

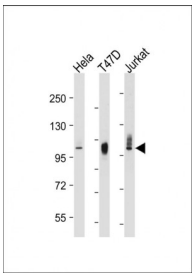
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, k
Clone Name	157CT16.6.6
Purity	Purified
UniProt	P13473
RRID	AB_3753457
Applications	Western blot: 1:100-1:1000 Immunofluorescence: 1:10-1:50 Immunohistochemistry (FFPE): 1:50
Limitations	This LAMP2 Antibody / CD107b Antibody is available for research use only.



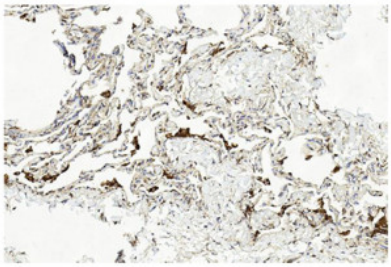
LAMP2 Antibody Mouse Fibroblast WB. Western blot analysis of mouse NIH3T3 fibroblast lysate using LAMP2 antibody detected a prominent band at approximately 100-110 kDa. Although the predicted core protein is smaller, LAMP2 undergoes extensive N-linked glycosylation, resulting in an apparent molecular weight that commonly ranges from approximately 45-110 kDa depending on glycosylation status and cell type. The observed band is consistent with the mature glycosylated form of LAMP2. This LAMP2 Antibody, also called a CD107b Antibody, is suitable for studies of lysosome biology, autophagy, intracellular trafficking, and immune cell function.



LAMP2 Antibody Human Liver Cancer Cell IF. Confocal immunofluorescent staining of human HepG2 cells using LAMP2 antibody followed by Alexa Fluor 488-conjugated goat anti-mouse IgG revealed strong punctate cytoplasmic fluorescence (green), consistent with the lysosomal localization of LAMP2. Nuclei were counterstained with DAPI (blue). The punctate staining pattern reflects the distribution of lysosomal membranes within the cytoplasm. This LAMP2 Antibody, also called a CD107b Antibody, is useful for investigating lysosome biology, autophagy, intracellular membrane trafficking, and lysosome-associated protein expression.



LAMP2 Antibody in HeLa, T47D and Jurkat Cell Lysates WB. Western blot testing of HeLa, T47D and Jurkat whole cell lysates with LAMP2 Antibody detects a prominent species at approximately 100-110 kDa, with particularly strong signal in T47D cells. Although the predicted unglycosylated molecular weight of LAMP2 is approximately 45 kDa, extensive glycosylation causes the mature lysosomal membrane protein to migrate substantially higher by SDS-PAGE. The observed high-molecular-weight CD107b signal is therefore consistent with the expected migration of mature LAMP2 protein.



LAMP2 Antibody in Human Lung Tissue IHC. Immunohistochemistry staining of paraffin-embedded human lung tissue with LAMP2 Antibody demonstrates heterogeneous brown DAB staining within the lung parenchyma, with granular cytoplasmic positivity visible in scattered cells. This staining pattern is consistent with the lysosomal and vesicular localization of LAMP2. The antibody was used at a 1:500 dilution followed by a biotinylated goat polyvalent secondary antibody and DAB detection. Hematoxylin counterstaining highlights nuclei and surrounding lung architecture.

Description

LAMP2 Antibody / CD107b Antibody, clone 157CT16.6.6, recognizes Lysosome Associated Membrane Protein 2 (LAMP2), a highly glycosylated lysosomal membrane protein that is essential for lysosome integrity, intracellular protein degradation, and autophagy. The LAMP2 gene produces three major splice variants, LAMP2A, LAMP2B, and LAMP2C, which share a common luminal domain but possess distinct transmembrane and cytoplasmic regions that confer specialized biological functions. Antibodies recognizing the shared regions of LAMP2 detect all major isoforms, making them valuable tools for investigating lysosomal biology, membrane trafficking, and protein homeostasis across a broad range of tissues.

LAMP2 is one of the most abundant proteins of the lysosomal membrane, where its heavily glycosylated luminal domain protects the membrane from degradation by lysosomal hydrolases. Beyond this structural role, LAMP2 participates in lysosome maturation, autophagosome-lysosome fusion, endosomal trafficking, and intracellular recycling pathways. Individual isoforms also perform specialized functions. LAMP2A serves as the receptor for chaperone-mediated autophagy, LAMP2B is important for lysosomal function in muscle and cardiac tissue, and LAMP2C has been implicated in lysosomal nucleic acid transport. Together, these activities make LAMP2 a central regulator of cellular quality control and metabolic homeostasis.

LAMP2 is also designated CD107b, the cluster of differentiation name widely used in immunology. CD107b is expressed on the surface of cytotoxic T lymphocytes, natural killer cells, macrophages, and other immune cells during lysosomal exocytosis and degranulation. Consequently, CD107b serves as a well-established functional marker for immune cell activation, cytotoxic responses, and lysosome-dependent secretion, particularly in flow cytometry assays. Altered LAMP2 expression has additionally been associated with cancer, neurodegenerative disorders, inflammatory diseases, and Danon disease, a lysosomal storage disorder caused by pathogenic variants in the LAMP2 gene. Because of these diverse biological roles, LAMP2 remains an important target for studies of lysosomal dysfunction, autophagy, and immune regulation.

A LAMP2 Antibody is a valuable research tool for investigating lysosome biology, autophagy, intracellular trafficking, immune cell activation, and diseases involving lysosomal dysfunction.

For research focused specifically on chaperone-mediated autophagy, see our LAMP2A Antibody / Chaperone-Mediated Autophagy Receptor Antibody page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the LAMP2 Antibody / CD107b Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This LAMP2 antibody was produced from a mouse immunized with LAMP2 recombinant protein.

Storage

Store at 4oC for up to one month. For long term, aliquot the LAMP2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

LAMP2 antibody, CD107b antibody, Lysosome Associated Membrane Protein 2 antibody, Lysosome Associated Membrane Glycoprotein 2 antibody

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