

LAMP1 Antibody [Knockout Validated]

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM8465b

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P11279
Reactivity	Human, Monkey
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1483CT517.45.23
Calculated MW	44882

Additional Information

Gene ID	3916
Other Names	Lysosome-associated membrane glycoprotein 1, LAMP-1, Lysosome-associated membrane protein 1, CD107 antigen-like family member A, CD107a, LAMP1
Target/Specificity	This LAMP1 antibody is generated from a mouse immunized with a recombinant protein.
Dilution	WB~~1:2000 IHC-P~~1:100~500 IF~~1:25 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LAMP1 Antibody [Knockout Validated] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LAMP1 {ECO:0000303 PubMed:23632890, ECO:0000312 HGNC:HGNC:6499}
Function	Lysosomal membrane glycoprotein which plays an important role in lysosome biogenesis, lysosomal pH regulation, autophagy and cholesterol homeostasis (PubMed: 37390818). Acts as an important regulator of lysosomal lumen pH regulation by acting as a direct inhibitor of the proton channel

TMEM175, facilitating lysosomal acidification for optimal hydrolase activity (PubMed:[37390818](#)). Also plays an important role in NK-cells cytotoxicity (PubMed:[2022921](#), PubMed:[23632890](#)). Mechanistically, participates in cytotoxic granule movement to the cell surface and perforin trafficking to the lytic granule (PubMed:[23632890](#)). In addition, protects NK-cells from degranulation-associated damage induced by their own cytotoxic granule content (PubMed:[23847195](#)). Presents carbohydrate ligands to selectins (PubMed:[7685349](#)).

Cellular Location

Lysosome membrane; Single-pass type I membrane protein. Endosome membrane; Single-pass type I membrane protein. Late endosome membrane; Single-pass type I membrane protein. Cell membrane; Single-pass type I membrane protein. Cytolytic granule membrane; Single-pass type I membrane protein. Note=This protein shuttles between lysosomes, endosomes, and the plasma membrane (By similarity). Colocalizes with OSBPL1A at the late endosome (PubMed:16176980).
{ECO:0000250|UniProtKB:P05300, ECO:0000269|PubMed:16176980, ECO:0000269|PubMed:17897319}

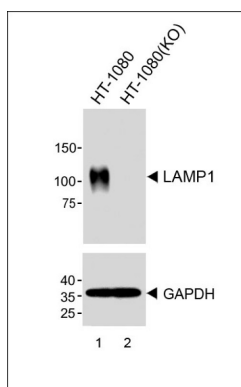
Background

Presents carbohydrate ligands to selectins. Also implicated in tumor cell metastasis.

References

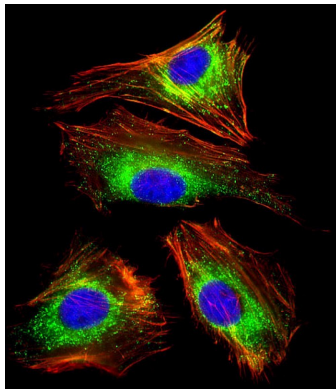
Fukuda M.,et al.J. Biol. Chem. 263:18920-18928(1988).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Dunham A.,et al.Nature 428:522-528(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Mane S.M.,et al.Arch. Biochem. Biophys. 268:360-378(1989).

Images

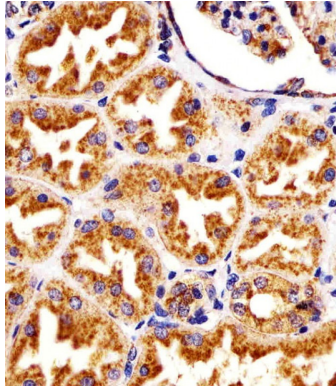


All lanes : Anti-LAMP1 Antibody at 1:1000 dilution (upper)
Lane 1: HT1080 Lane 2: HT1080-Knockout
Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Predicted band size : 90-120 kDa

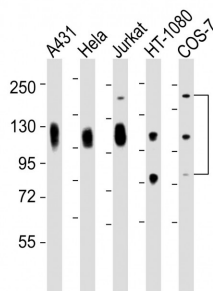
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling LAMP1 with AM8465b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100



dilution (red). The nuclear counter stain is DAPI (blue).



AM8465b staining LAMP1 in human kidney sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



All lanes : Anti-LAMP1 Antibody at 1:2000 dilution Lane 1: A431 whole cell lysates Lane 2: HeLa whole cell lysates Lane 3: Jurkat whole cell lysates Lane 4: HT-1080 whole cell lysates Lane 5: COS-7 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- [Effect of Protein O-Mannosyltransferase \(MSMEG_5447\) on and Its Survival in Macrophages](#)
- [L-3-n-Butylphthalide improves synaptic and dendritic spine plasticity and ameliorates neurite pathology in Alzheimer's disease mouse model and cultured hippocampal neurons](#)
- [AXL Mediates Esophageal Adenocarcinoma Cell Invasion through Regulation of Extracellular Acidification and Lysosome Trafficking.](#)

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