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KD-Validated Anti-LAMP1 /CD107a Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI2050

Specification

KD-Validated Anti-LAMP1 /CD107a Rabbit Monoclonal Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P11279
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 45 kDa , observed, 120 kDa KDa**
Gene Name	**LAMP1**
Aliases	**CD107a; Lysosome-Associated Membrane Glycoprotein 1; Lysosome-Associated Membrane Protein 1; CD107 Antigen-Like Family Member A; LAMP-1; Lysosomal-Associated Membrane Protein 1; CD107a Antigen; LGP120; LAMPA**
Immunogen	**A synthesized peptide derived from human LAMP1**

KD-Validated Anti-LAMP1 /CD107a Rabbit Monoclonal Antibody - 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 {ECO:0000303|PubMed:23632890, ECO:0000312|HGNC:HGNC:6499}

KD-Validated Anti-LAMP1 /CD107a Rabbit Monoclonal Antibody - 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).

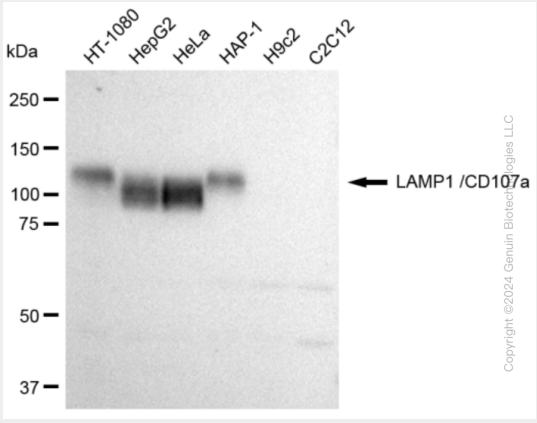
Cellular Location
Lysosome membrane; Single-pass type I membrane protein. Endosome membrane; Single- pass type I membrane protein. Late endosome membrane; Single-pass type I membrane protein. Cell membrane; Single-pass type I membrane protein. Cytolytic granule membrane; Single-pass type I membrane protein. 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}

KD-Validated Anti-LAMP1 /CD107a Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-LAMP1 /CD107a Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-LAMP1 /CD107a antibody (Cat#AGI2050). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-LAMP1 /CD107a antibody (Cat#AGI2050, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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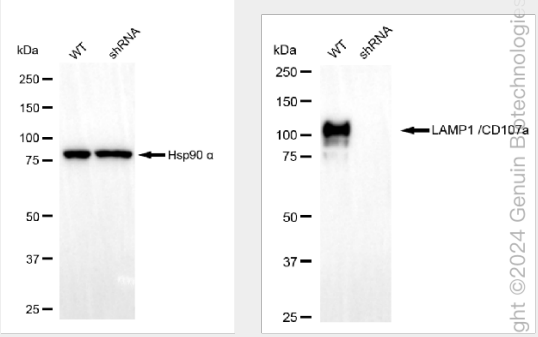
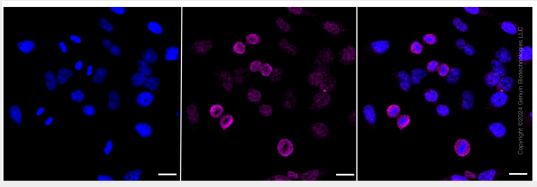


Western blotting analysis using anti-LAMP1 /CD107a antibody (Cat#AGI2050). LAMP1 /CD107a expression in wild type (WT) and LAMP1 /CD107a shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. GAPDH serves as a loading control. The blot was incubated with anti-LAMP1 /CD107a antibody (Cat#AGI2050, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Immunocytochemical staining of HeLa cells with LAMP1 /CD107a antibody (Cat#AGI2050, 1:1,000). Nuclei were stained blue with DAPI; LAMP1 /CD107a was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Low. Scale bar: 20 µm.