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Anti-CD107a Antibody [KO/KD Validated]

Catalog # AP51313

Product Information

Application	WB, IF/IC
Primary Accession	P11279
Reactivity	Human, Rat
Host	Rabbit
Clonality	Polyclonal
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
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CD107a. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

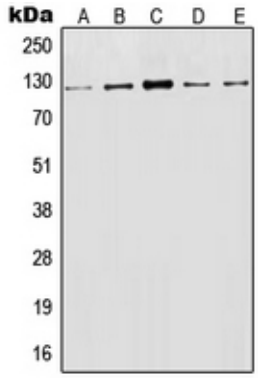
Name	LAMP1 {ECO:0000303|PubMed:23632890, ECO:0000312|HGNC:HGNC:6499}
Function	Lysosomal membrane glycoprotein which plays an important role in lysosome biogenesis, lysosomal pH regulation, autophagy and cholesterol homeostasis (PubMed:37390818). Acts as an important regulator of lysosomal lumen pH regulation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

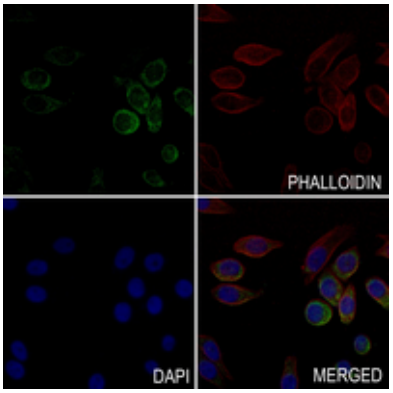
References

Fukuda M.,et al.J. Biol. Chem. 263:18920-18928(1988).
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).
Viitala J.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:3743-3747(1988).

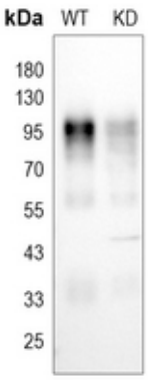
Images



Western blot analysis of CD107a expression in Sol8 (A), HeLa (B), U937 (C), JAR (D), Ramos (E) whole cell lysates. (Predicted band size: 44 kD; Observed band size: 90 kD)



Immunofluorescent analysis of CD107a staining in PCCL cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Western blot analysis of CD107a expression in wild type (WT) and knockdown (KD) HT1080 cell lysates.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.