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CD63 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5333B

Product Information

Application	WB, FC, IHC-P-Leica, E
Primary Accession	P08962
Other Accession	NP_001771.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	25637
Antigen Region	163-190

Additional Information

Gene ID	967
Other Names	CD63 antigen, Granulophysin, Lysosomal-associated membrane protein 3, LAMP-3, Melanoma-associated antigen ME491, OMA81H, Ocular melanoma-associated antigen, Tetraspanin-30, Tspan-30, CD63, CD63, MLA1, TSPAN30
Target/Specificity	This CD63 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 163-190 amino acids from the C-terminal region of human CD63.
Dilution	WB~~1:1000 FC~~1:10~50 IHC-P-Leica~~1:500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	CD63 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD63
Synonyms	MLA1, TSPAN30

Function	Functions as a cell surface receptor for TIMP1 and plays a role in the activation of cellular signaling cascades. Plays a role in the activation of ITGB1 and integrin signaling, leading to the activation of AKT, FAK/PTK2 and MAP kinases. Promotes cell survival, reorganization of the actin cytoskeleton, cell adhesion, spreading and migration, via its role in the activation of AKT and FAK/PTK2. Plays a role in VEGFA signaling via its role in regulating the internalization of KDR/VEGFR2. Plays a role in intracellular vesicular transport processes, and is required for normal trafficking of the PMEL luminal domain that is essential for the development and maturation of melanocytes. Plays a role in the adhesion of leukocytes onto endothelial cells via its role in the regulation of SELP trafficking. May play a role in mast cell degranulation in response to Ms4a2/FceRI stimulation, but not in mast cell degranulation in response to other stimuli.
Cellular Location	Cell membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Endosome, multivesicular body. Melanosome. Secreted, extracellular exosome. Cell surface. Note=Also found in Weibel-Palade bodies of endothelial cells (PubMed:10793155). Located in platelet dense granules (PubMed:7682577). Detected in a subset of pre-melanosomes Detected on intralumenal vesicles (ILVs) within multivesicular bodies (PubMed:21962903).
Tissue Location	Detected in platelets (at protein level). Dysplastic nevi, radial growth phase primary melanomas, hematopoietic cells, tissue macrophages.

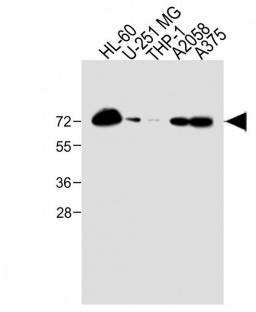
Background

CD63 is a member of the transmembrane 4 superfamily, also known as the tetraspanin family. Most of these members are cell-surface proteins that are characterized by the presence of four hydrophobic domains. The proteins mediate signal transduction events that play a role in the regulation of cell development, activation, growth and motility. This encoded protein is a cell surface glycoprotein that is known to complex with integrins. It may function as a blood platelet activation marker. Deficiency of this protein is associated with Hermansky-Pudlak syndrome. Also this gene has been associated with tumor progression. The use of alternate polyadenylation sites has been found for this gene.

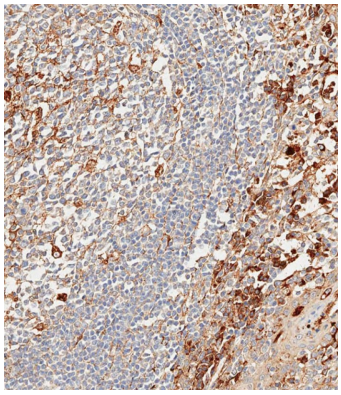
References

Weng, J., et al. J. Virol. 83(15):7467-7474(2009)
Kassahn, D., et al. Cell Death Differ. 16(1):115-124(2009)
Logozzi, M., et al. PLoS ONE 4 (4), E5219 (2009)

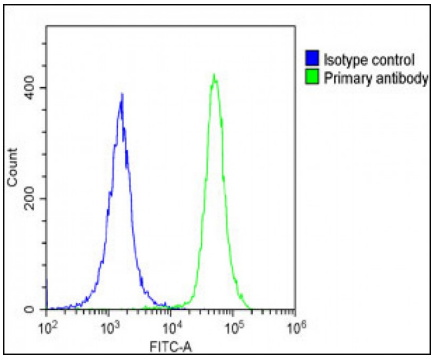
Images



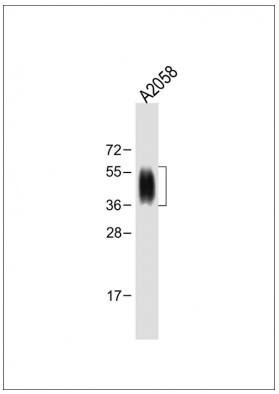
All lanes : Anti-CD63 Antibody (C-term) at 1:2000 dilution Lane 1: HL-60 whole cell lysate Lane 2: U-251 MG whole cell lysate Lane 3: THP-1 whole cell lysate Lane 4: A2058 whole cell lysate Lane 5: A375 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40-50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



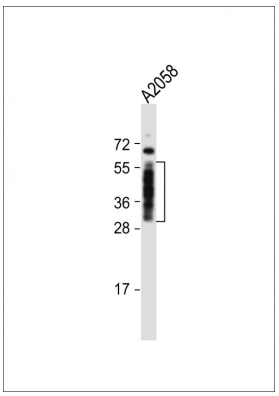
Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AP5333b performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing HL-60 cells stained with AP5333b(green line). The cells were fixed with 2% paraformaldehyde and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at Room temperature. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



Anti-CD63 Antibody (C-term) at 1:1000 dilution + A2058 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40-50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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Citations

- A Novel Urine Exosomal lncRNA Assay to Improve the Detection of Prostate Cancer at Initial Biopsy: A Retrospective Multicenter Diagnostic Feasibility Study
- Diagnostic and Prognostic Value of miR-16, miR-146a, miR-192 and miR-221 in Exosomes of Hepatocellular Carcinoma and Liver Cirrhosis Patients
- Exosomal miR-1246 and miR-155 as predictive and prognostic biomarkers for trastuzumab-based therapy resistance in

HER2-positive breast cancer

- Vps4A mediates the localization and exosome release of β-catenin to inhibit epithelial-mesenchymal transition in hepatocellular carcinoma.
- Aspirin inhibits hypoxia-mediated lung cancer cell stemness and exosome function.
- Specific microRNA signatures in exosomes of triple-negative and HER2-positive breast cancer patients undergoing neoadjuvant therapy within the GeparSixto trial.
- Different signatures of miR-16, miR-30b and miR-93 in exosomes from breast cancer and DCIS patients.
- Exosomal microRNAs as tumor markers in epithelial ovarian cancer.
- Diagnostic and prognostic relevance of circulating exosomal miR-373, miR-200a, miR-200b and miR-200c in patients with epithelial ovarian cancer.
- Therapeutic potential of human adipose-derived stem cells (ADSCs) from cancer patients: a pilot study.