

## CD63 Antibody (C-term)

**Affinity Purified Rabbit Polyclonal Antibody (Pab)** Catalog # AP5333B

# **Specification**

## CD63 Antibody (C-term) - Product Information

**Application** Primary Accession Other Accession Reactivity Host Clonality

Human **Rabbit Polyclonal** Isotype Rabbit IgG **Antigen Region** 163-190

## CD63 Antibody (C-term) - 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.

WB, FC, IHC-P-Leica, E

P08962

NP 001771.1

## **Dilution**

WB~~1:1000 FC~~1:25 IHC-P-Leica~~1:500

E~~Use at an assay dependent concentration.

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.

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.

### CD63 Antibody (C-term) - 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.

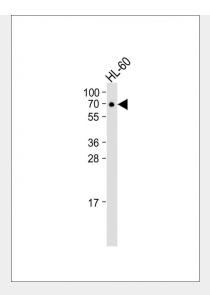
## CD63 Antibody (C-term) - Protocols

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

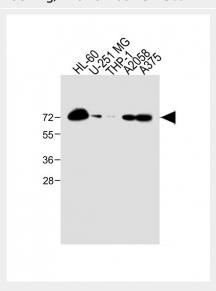
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## CD63 Antibody (C-term) - Images



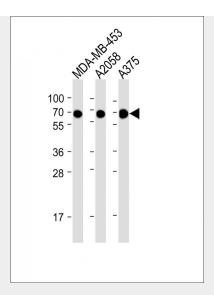


Anti-CD63 Antibody (C-term) at 1:1000 dilution + HL-60 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40-50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

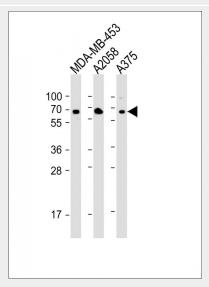


All lanes : Anti-CD63 Antibody (C-term) at 1:2000 dilution Lane 1: HL-60 whole cell lysate Lane 2: U-251 MG whole cell lysate Lane 3: THP-1 whole cell lysate Lane 4: A2058 whole cell lysate Lane 5: A375 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit lgG, (H+L),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



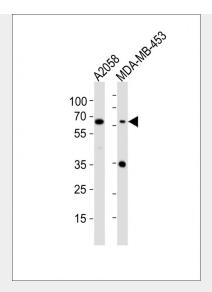


All lanes : Anti-CD63 Antibody (C-term) at 1:2000 dilution Lane 1: MDA-MB-453 whole cell lysate Lane 2: A2058 whole cell lysate Lane 3: A375 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 40-50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

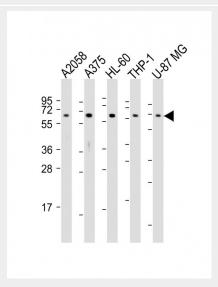


All lanes: Anti-CD63 Antibody (C-term) at 1:2000 dilution Lane 1: MDA-MB-453 whole cell lysate Lane 2: A2058 whole cell lysate Lane 3: A375 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 40-50 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



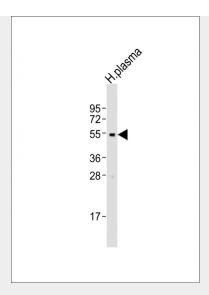


All lanes : Anti-CD63 Antibody (C-term) at 1:1000 dilution Lane 1: A2058 whole cell lysates Lane 2: MDA-MB-453 whole cell lysates Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

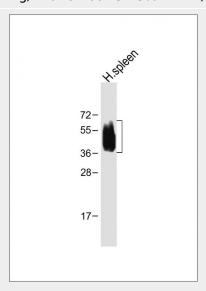


All lanes : Anti-CD63 Antibody (C-term) at 1:2000 dilution Lane 1: A2058 whole cell lysates Lane 2: A375 whole cell lysates Lane 3: HL-60 whole cell lysates Lane 4: THP-1 whole cell lysates Lane 5: U-87 MG whole cell lysates Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



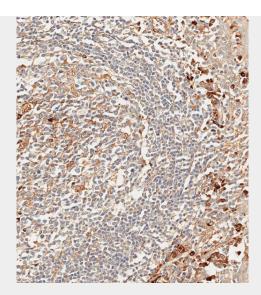


Anti-CD63 Antibody (C-term)at 1:2000 dilution + human plasma lysates Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 25 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

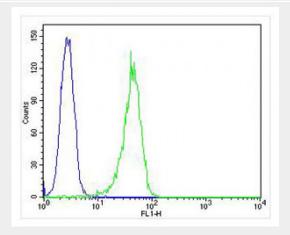


Anti-CD63 Antibody (C-term) at 1:1000 dilution + Human spleen lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



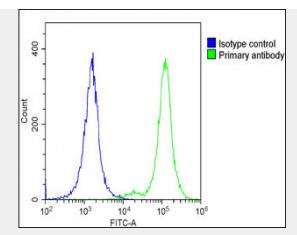


Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AP5333b performed on the Leica® BOND RXm. Samples were incubated with primary antibody(1/500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing HL-60 cells stained with AP5333b (green line). The cells were fixed with 4% paraformaldehyde (10 min) 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 (AP5333b, 1:25 dilution) for 60 min at  $37^{\circ}$ C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (H+L) (1583138) at 1/400 dilution for 40 min at  $37^{\circ}$ C. Isotype control antibody (blue line) was rabbit lgG1 ( $1\mu$ g/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.





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  $37^{\circ}$ C. 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.

# CD63 Antibody (C-term) - 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.

# CD63 Antibody (C-term) - 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)

# CD63 Antibody (C-term) - Citations

- A Novel Urine Exosomal IncRNA 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
- <u>Vps4A mediates the localization and exosome release of β-catenin to inhibit epithelial-mesenchymal transition in hepatocellular carcinoma.</u>
- 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.
- <u>Different signatures of miR-16</u>, <u>miR-30b</u> and <u>miR-93</u> in exosomes from breast cancer and <u>DCIS</u> 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.