abcam

# ab252919

# Anti-CD63 antibody [EPR22458-280]

Recombinant | RabMAb | 20ul selling size

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR22458-280 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.659 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

### IP

**Not recommended**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Flow Cyt (Intra)

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/60 |
| **Notes** | - |

## WB

**Not recommended**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## ICC/IF

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/1000 |
| **Notes** | - |

## IHC-P

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/2000 |
| **Notes** | Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |

# Target data

See full target information CD63

| | |
|---|---|
| **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.

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Notes

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | CD63 is a protein commonly known as LAMP-3 a member of the tetraspanin family with a molecular weight of approximately 25-65 kDa depending on post-translational modifications such as glycosylation. It resides mainly on the membrane of intracellular vesicles such as lysosomes and platelets. CD63 also appears on the surface of activated cells particularly in immune cells. Researchers often use CD63 as a marker in assays including CD63 western blot techniques due to its distinct expression patterns. |
| **Biological function summary** | CD63 participates in various cellular processes including membrane trafficking cell adhesion and signal transduction. It associates with integrins and other tetraspanins forming complexes that influence cellular adhesion and migration. Through its role in exosome formation CD63 contributes significantly to intercellular communication by facilitating the transfer of proteins lipids and RNA between cells. |
| **Pathways** | CD63 plays a role in pathways linked to cell proliferation and migration and immune response regulation. Within the integrin-mediated signaling pathway CD63 interacts with proteins such as integrins to promote cell adhesion and migration. CD63 also links to vesicle trafficking pathways collaborating with proteins involved in exocytosis and endocytosis which affect cell membrane restructuring and intracellular transport. |
| **Associated diseases and disorders** | CD63 shows connections with cancer and immune system disorders. Its role in promoting cell adhesion and migration links it with cancer metastasis including melanoma and breast cancer where CD63 expression levels often rise. Additionally CD63 associates with allergic reactions due to its involvement in histamine release where it impacts immune proteins like FcεRI which participate in allergy pathogenesis. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

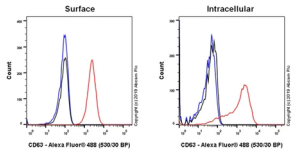
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

## 7 product images

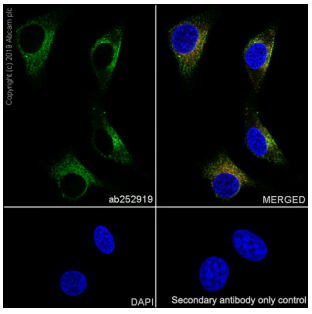



### Flow Cytometry - Anti-CD63 antibody [EPR22458-280] (ab252919)

CD63 Flow Cytometry staining using rabbit Anti-CD63 antibody

Flow cytometric analysis of SK-MEL-28 (human malignant melanoma cell line) cells labeling CD63 with ab252919 at 1/60 (red) compared with a Rabbit monoclonal IgG Isotype control (ab172730) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077), at 1/2000 dilution was used as the secondary antibody.
Left panel: No fixation/permeabilization; Gated on viable cells for surface CD63 staining.

Right panel: 4% paraformadehyde fixation / 90% methanol permeabilization.

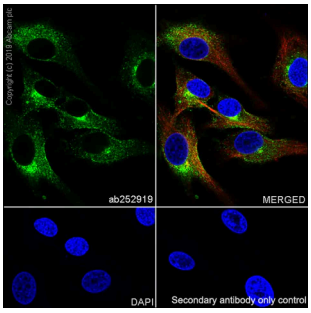



### Immunocytochemistry/ Immunofluorescence - Anti-CD63 antibody [EPR22458-280] (ab252919)

CD63 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD63 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SK-MEL-28 (human malignant melanoma cell line) cells labeling CD63 with ab252919 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing lysosome/endosomes co-staining in SK-MEL-28 cell line. The nuclear counterstain is DAPI (blue). Lysosomes/endosomes are detected with Anti-LAMP1 antibody [H4A3] (ab25630) at 1/200 dilution, followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed (ab150120) (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

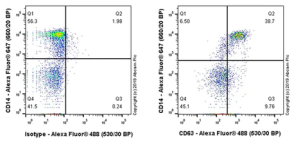



## Immunocytochemistry/ Immunofluorescence - Anti-CD63 antibody [EPR22458-280] (ab252919)

CD63 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD63 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SK-MEL-28 (human malignant melanoma cell line) cells labeling CD63 with ab252919 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic and membranous staining in SK-MEL-28 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

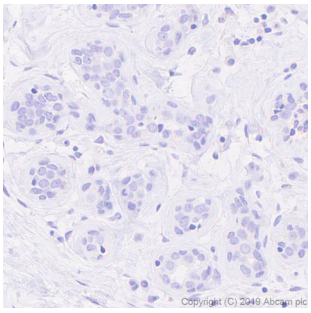


## Flow Cytometry (Intracellular) - Anti-CD63 antibody [EPR22458-280] (ab252919)

CD63 Flow Cytometry (Intracellular) staining using rabbit Anti-CD63 antibody

Flow cytometric analysis of human peripheral blood mononuclear cells labeling CD63 with ab252919 at 1/60 (right) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (left). Goat Anti-Rabbit IgG Fc (Alexa Fluor® 488) preadsorbed (ab150097), at 1/5000 dilution was used as the secondary antibody.
Cells were stained with rabbit IgG (Left) or ab252919 (Right). Then stained with anti-CD14 conjugated to Alexa Fluor® 647.

Gated on viable cells.

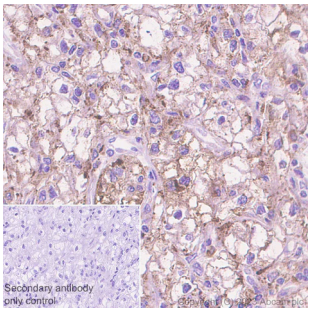


## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD63 antibody [EPR22458-280] (ab252919)

CD63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD63 antibody

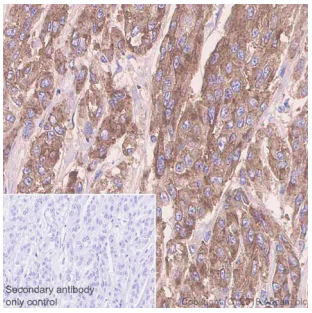
Immunohistochemical analysis of paraffin-embedded human breast tissue labeling CD63 with ab252919 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Counter stained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.
**Negative control:** No staining on normal epithelial cells and stromal cells in human breast (PMID: 22957045).

Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD63 antibody [EPR22458-280] (ab252919)

Immunohistochemical analysis of paraffin-embedded human clear cell renal cell carcinoma tissue labeling CD63 with ab252919 at 1/4000 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (ab209101), Ready to use. Counter stained with hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins. Positive staining on human clear cell renal cell carcinoma. The section was incubated with ab252919 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument.




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD63 antibody [EPR22458-280] (ab252919)

Immunohistochemical analysis of paraffin-embedded human melanoma tissue labeling CD63 with ab252919 at 1/2000 dilution, followed by Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining on human melanoma (PMID: 22425483) is observed. Counter stained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 minutes.

The section was incubated with ab252919 for 30 minutes at RT.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

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