abcam

ab318246

Alexa Fluor® 488 Anti-CD63 antibody [KILL150A]

Recombinant

Key facts

Isotype	IgG
Host species	Mouse
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	KILL150A
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human

Dilution info	1/50
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

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	Blue Ice
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, Store in the dark

Notes

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.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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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

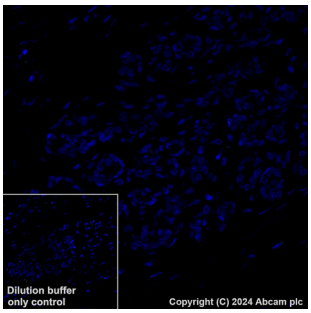
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-CD63 antibody [KILL150A] (ab318246)

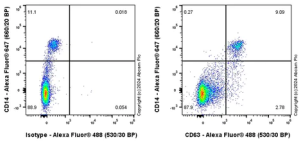
CD63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human breast using mouse Anti-CD63 antibody

Immunohistochemical analysis of paraffin-embedded Human breast tissue labeling CD63 with ab318246 at 1/50 (10.0 ug/ml) dilution.

Negative control: no staining on human breast.
The section was incubated with ab318246 at 4°C overnight (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Counterstained with DAPI.

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

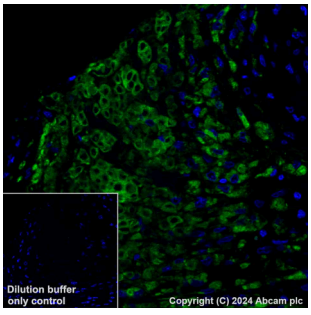


Flow Cytometry - Alexa Fluor® 488 Anti-CD63 antibody [KILL150A] (ab318246)

CD63 Flow Cytometry staining of Human PBMC (human peripheral blood mononuclear cell) using mouse Anti-CD63 antibody

Flow cytometric analysis of Human PBMC (human peripheral blood mononuclear cell) cells labelling CD63 with ab318246 at 1/500 dilution (0.1ug) / Right compared with a Mouse IgG1 [MOPC-21] - Isotype Control (AlexaFluor® 488) (ab234075) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Gated on viable cells.
Cells are co-stained with CD14 conjugated to Alexa Fluor® 647.



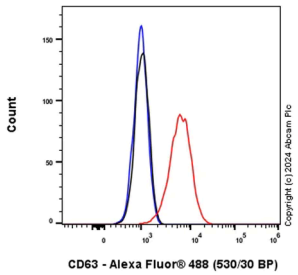
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-CD63 antibody [KILL150A] (ab318246)

Immunohistochemical analysis of paraffin-embedded Human melanoma tissue labeling CD63 with ab318246 at 1/50 (10.0 ug/ml) dilution.

Cytoplasmic staining on human melanoma.
The section was incubated with ab318246 at 4°C overnight (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Counterstained with DAPI.

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

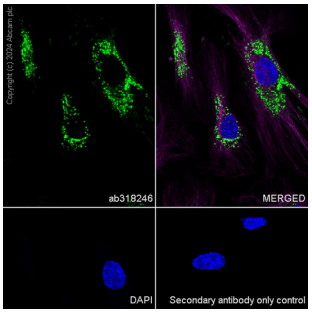


Flow Cytometry - Alexa Fluor® 488 Anti-CD63 antibody [KILL150A] (ab318246)

CD63 Flow Cytometry staining of SK-MEL-28 (Human malignant melanoma) using mouse Anti-CD63 antibody

Flow cytometric analysis of SK-MEL-28 (Human malignant melanoma) cells labelling CD63 with ab318246 at 1/500 dilution (0.1ug) (Red) compared with a Mouse IgG1 [MOPC-21] - Isotype Control (AlexaFluor® 488) (ab234075) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Gated on viable cells.

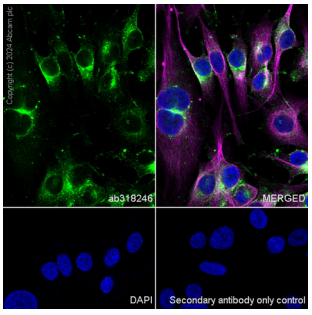


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-CD63 antibody [KILL150A] (ab318246)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HUVEC (human umbilical vein endothelial cell) cells labelling CD63 with ab318246 at 1/50 (10.0 ug/ml) dilution (Green).

Confocal image showing cytoplasmic staining in HUVEC cell line(shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue).Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 10ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-CD63 antibody [KILL150A] (ab318246)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized SK-MEL-28 (human malignant melanoma cell) cells labelling CD63 with ab318246 at 1/50 (10.0 ug/ml) dilution (Green).

Confocal image showing cytoplasmic staining in SK-MEL-28 cell line(shown in green). The counterstain was observed in magenta. Nuclear DNA was labeled with DAPI (shown in blue).Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 10ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

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