abcam

ab271296

Anti-CD63 antibody [KILL150A] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	KILL150A
Purification technique	Affinity purification Protein A
Specificity	We recommend ab134045 for low expression samples.
Concentration	1.069 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-

Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
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 conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab271296 is the carrier-free version of ab271286.

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

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

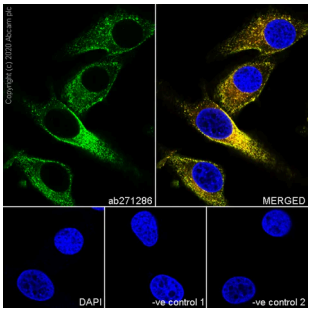
We do not recommend this combination. It is not covered by our product promise.

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



Immunocytochemistry/ Immunofluorescence - Anti-CD63 antibody [KILL150A] - BSA and Azide free (ab271296)

CD63 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD63 antibody

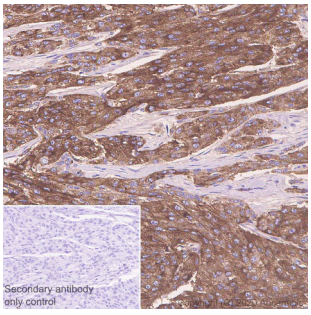
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SK-MEL-28 cells labelling CD63 with ab271286 at 1/50 dilution (19.56µg/ml), followed by ab150113 Goat Anti-mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing lysosome/endosomes (ab252919) co-staining in SK-MEL-28 cells.

ab252919 Anti-CD63 rabbit monoclonal antibody was used to counterstain tubulin at 1/250 dilution, followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/1000 dilution (Red). The nuclear counterstain was DAPI (Blue).

Negative control 1: ab271286 at a 1/50 dilution (19.56µg/ml) followed by ab150080 at a 1/1000 dilution.

Negative control 2: ab259919 at a 1/200 dilution followed by ab150113 at a 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab271286).



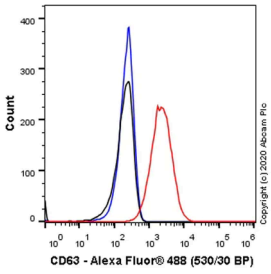
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD63 antibody [KILL150A] - BSA and Azide free (ab271296)

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

Immunohistochemical analysis of paraffin-embedded human melanoma tissue labeling CD63 with ab271286 at 1/4000 dilution (0.978µg/ml) followed by ready to use Goat Anti-mouse IgG H&L (HRP polymer) (ab214879). Cytoplasmic staining on human melanoma. The section was incubated with ab271268 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is ready to use Goat Anti-mouse IgG H&L (HRP polymer) (ab214879).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

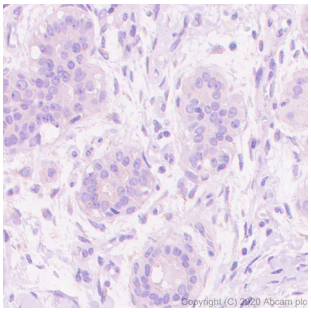
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab271286).



Flow Cytometry - Anti-CD63 antibody [KILL150A] - BSA and Azide free (ab271296)

CD63 Flow Cytometry staining using mouse Anti-CD63 antibody

Flow cytometric analysis of SK-MEL-28 (human malignant melanoma) cells labelling CD63 with ab271286 at 1/1000 dilution (19.56µg/ml) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab271286).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD63 antibody [KILL150A] - BSA and Azide free (ab271296)

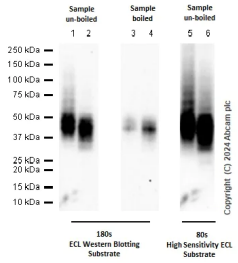
CD63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD63 antibody

Immunohistochemical analysis of paraffin-embedded human breast tissue labeling CD63 with ab271286 at 1/4000 dilution (0.978µg/ml) followed by ready to use Goat Anti-mouse IgG H&L (HRP polymer) (ab214879). The section was incubated with ab271268 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Negative control: Nearly no staining on human breast.

Secondary antibody only control: Secondary antibody is ready to use Goat Anti-mouse IgG H&L (HRP polymer) (ab214879).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab271286).



Western blot - Anti-CD63 antibody [KILL150A] - BSA and Azide free (ab271296)

CD63 can undergo glycosylation as shown in lane 1, 2 and 3 (PMID: 9890706, 28740179).

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lanes 1-2: 3 mins; Lane 3: 48 secs.

This blot was developed using a higher sensitivity ECL substrate.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab271286).

All lanes:
Western blot - Anti-CD63 antibody [KILL150A] (ab271286) at 1/1000 dilution

Lanes 1 and 5:
Un-boiled HUVEC (human umbilical vein endothelial cell) whole cell lysate at 20 µg

Lanes 2 and 6:
Un-boiled SK-MEL-28 (human malignant melanoma) whole cell lysate at 20 µg

Lane 3:
Boiled HUVEC (human umbilical vein endothelial cell) whole cell lysate at 20 µg

Lane 4:
Boiled SK-MEL-28 (human malignant melanoma) whole cell lysate at 20 µg

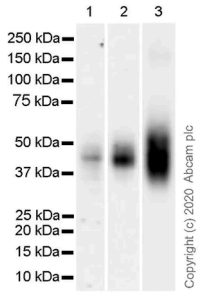
Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 26 kDa

Observed band size: 30-60 kDa



Western blot - Anti-CD63 antibody [KILL150A] - BSA and Azide free (ab271296)

CD63 can undergo glycosylation as shown in lane 1, 2 and 3 (PMID: 9890706, 28740179).
Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lanes 1-2: 3 mins; Lane 3: 48 secs.

This blot was developed using a higher sensitivity ECL substrate.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab271286).

All lanes:
Western blot - Anti-CD63 antibody [KILL150A] (ab271286) at 0.978 µg/mL

Lane 1:
SK-MEL-28 (human malignant melanoma), whole cell lysate at 10 µg

Lane 2:
HUVEC (human umbilical vein endothelial cell), whole cell lysate at 10 µg

Lane 3:
Human lymph node tissue lysate at 10 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 26 kDa

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