abcam

ab267408

Anti-Junctional Adhesion Molecule 1/JAM-A antibody [J10.4] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG1
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	J10.4
Purification technique	Affinity purification Protein A

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

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	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information F11R

Function

Seems to play a role in epithelial tight junction formation. Appears early in primordial forms of cell junctions and recruits PARD3 (PubMed:11489913). The association of the PARD6-PARD3 complex may prevent the interaction of PARD3 with JAM1, thereby preventing tight junction assembly (By similarity). Plays a role in regulating monocyte transmigration involved in integrity of epithelial barrier (By similarity). Ligand for integrin alpha-L/beta-2 involved in memory T-cell and neutrophil transmigration (PubMed:11812992). Involved in platelet activation (PubMed:10753840). (Microbial infection) Acts as a receptor for Mammalian reovirus sigma-1. (Microbial infection) Acts as a receptor for Human Rotavirus strain Wa.

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

ab267408 is the carrier-free version of ab267407.

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	Junctional Adhesion Molecule 1 also known as JAM-A or JAM-A protein is a member of the immunoglobulin superfamily. It has a mass of roughly 32 kDa. This molecule functions in tight junctions of epithelial and endothelial cells playing an important role in regulating paracellular permeability. JAM-A is expressed in tissues where tight junctions are present including the skin gastrointestinal tract and endothelia throughout the body.
Biological function summary	JAM-A functions as a cell adhesion molecule influencing processes like leukocyte transmigration and epithelial barrier formation. It does not act alone but rather forms complexes with other proteins at cell junctions. JAM-A interacts with other junctional proteins like occludin and claudins contributing to the structure and function of tight junctions.
Pathways	JAM-A participates in cellular processes involving inflammation and cell migration. It is an integral part of the signal transduction pathways that regulate leukocyte migration an important aspect of immune response. JAM-A is also associated with G-protein coupled receptors in these pathways highlighting its role in regulating intracellular signaling that affects cell adhesion and migration.
Associated diseases and disorders	JAM-A has connections with cancer progression and cardiovascular diseases. Its overexpression has been linked to several cancers including breast cancer due to its role in enhancing cell migration and invasion. In cardiovascular diseases JAM-A interacts with platelet-endothelial cell adhesion molecule-1 (PECAM-1) influencing the inflammatory response within vascular tissues. Understanding these

interactions can aid in developing therapeutic strategies targeting JAM-A in related diseases.

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

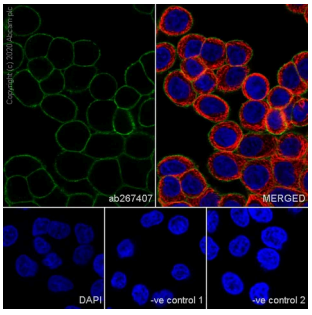
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images



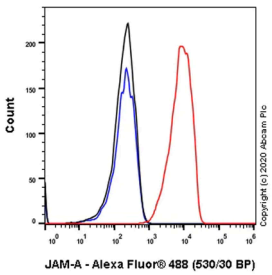
Immunocytochemistry/ Immunofluorescence - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [J10.4] - BSA and Azide free (ab267408)

Junctional Adhesion Molecule 1/JAM-A Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Junctional Adhesion Molecule 1/JAM-A antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HT-29 cells labelling JAM-A with ab267407 at 20.7µg/ml, followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in HT-29 cell line. ab179513 anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution, followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/500 dilution (Red). The nuclear counterstain was DAPI (Blue).
Negative control 1: ab267407 at 20.7µg/ml followed by ab150080 at a 1/500 dilution.

Negative control 2: ab179513 at a 1/200 dilution followed by ab150113 at a 1/1000 dilution.

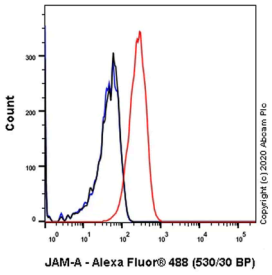
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab267407).



Flow Cytometry - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [J10.4] - BSA and Azide free (ab267408)

Junctional Adhesion Molecule 1/JAM-A Flow Cytometry staining using mouse Anti-Junctional Adhesion Molecule 1/JAM-A antibody

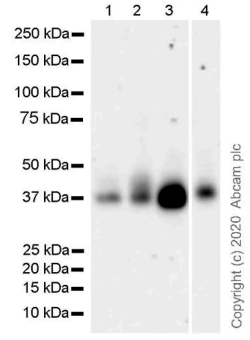
Flow cytometric analysis of Caco-2 (Human colorectal adenocarcinoma epithelial cell) cells labelling JAM-A with ab267407 at 1.035µg/ml (Red) compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti mouse IgG (Alexa Fluor® 488, ab150113) 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 (ab267407).



Flow Cytometry - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [J10.4] - BSA and Azide free (ab267408)

Junctional Adhesion Molecule 1/JAM-A Flow Cytometry staining using mouse Anti-Junctional Adhesion Molecule 1/JAM-A antibody

Flow cytometric analysis of HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labelling JAM-A with ab267407 at 1.035µg/ml (Red) compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti mouse IgG (Alexa Fluor® 488, ab150113) 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 (ab267407).



Western blot - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [J10.4] - BSA and Azide free (ab267408)

Junctional Adhesion Molecule 1/JAM-A Western blot staining using mouse Anti-Junctional Adhesion Molecule 1/JAM-A antibody

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID:10698320).
Blocking/Dilution buffer: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab267407).

All lanes:
Western blot - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [J10.4] (ab267407) at 1.035 µg/mL

Lane 1:
Caco-2 (human colorectal adenocarcinoma epithelial cell), whole cell lysate at 10 µg

Lane 2:
HT-29 (human colorectal adenocarcinoma epithelial cell), whole cell lysate at 10 µg

Lane 3:
A431 (human epidermoid carcinoma epithelial cell), whole cell lysate at 10 µg

Lane 4:
HUVEC (human umbilical vein endothelial cell), whole cell lysate at 10 µg

Secondary

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

Predicted band size: 32 kDa

Observed band size: 37 kDa

Exposure time: 3min

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