abcam

ab272172

Anti-Junctional Adhesion Molecule 1/JAM-A antibody [EPR23246-275] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
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	EPR23246-275
Purification technique	Affinity purification Protein A
Concentration	1.047 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	-

Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, 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

ab272172 is the carrier-free version of ab270446.

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.

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

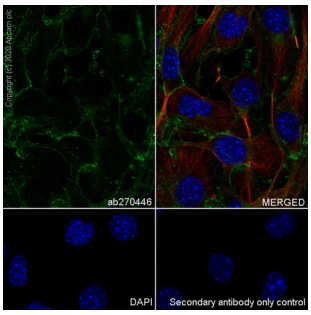
We do not recommend this combination. It is not covered by our product promise.

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.

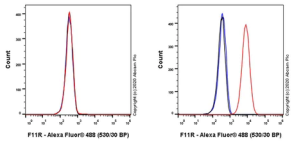
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [EPR23246-275] - BSA and Azide free (ab272172)

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

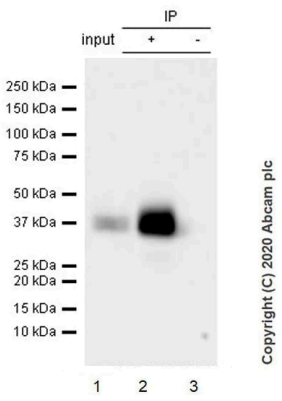
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized bEnd.3 cells labelling Junctional Adhesion Molecule 1/JAM-A with ab270446 at 1/50 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing membranous staining in bEnd.3 cell line ab195889 Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1000 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab270446).



Flow Cytometry - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [EPR23246-275] - BSA and Azide free (ab272172)

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

Flow cytometric analysis of Neuro-2a (Mouse neuroblastoma neuroblast, Left) / bEnd.3 (Mouse brain endothelioma, Right) cells labelling Junctional Adhesion Molecule 1/JAM-A with ab270446 at 1/600 dilution (0.1ug) (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 (ab270446).



Immunoprecipitation - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [EPR23246-275] - BSA and Azide free (ab272172)

Junctional Adhesion Molecule 1/JAM-A was immunoprecipitated from 0.35 mg bEnd.3 (mouse brain endothelioma), whole cell lysate with ab270446 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab270446 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: bEnd.3 (mouse brain endothelioma), whole cell lysate 10 ug

Lane 2: ab270446 IP in bEnd.3 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab270446 in bEnd.3 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab270446).

All lanes:
Immunoprecipitation - Anti-Junctional Adhesion Molecule 1/JAM-A antibody [EPR23246-275] (ab270446)

Predicted band size: 32 kDa

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