abcam

ab318985

Anti-JAM-C antibody [EPR29224-576] - 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	EPR29224-576
Purification technique	Affinity purification Protein A
Concentration	1.001 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	-

ICC/IF

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	-

Target data

See full target information JAM3

Function	Junctional adhesion protein that mediates heterotypic cell-cell interactions with its cognate receptor JAM2 to regulate different cellular processes (PubMed:11590146, PubMed:11823489). Plays a role in homing and mobilization of hematopoietic stem and progenitor cells within the bone marrow. At the surface of bone marrow stromal cells, it contributes to the retention of the hematopoietic stem and progenitor cells expressing JAM3 (PubMed:11590146, PubMed:24357068). Plays a central role in leukocytes extravasation by facilitating transmigration through the endothelium (By similarity). Plays a role in spermatogenesis where JAM2 and JAM3, which are respectively expressed by Sertoli and germ cells, mediate an interaction between both cell types and play an essential role in the anchorage of germ cells onto Sertoli cells and the assembly of cell polarity complexes during spermatid differentiation (By similarity). Also functions as a counter-receptor for ITGAM, mediating leukocyte-platelet interactions and is involved in the regulation of transepithelial migration of polymorphonuclear neutrophils (PMN) (PubMed:12208882, PubMed:15194813). Plays a role in angiogenesis (PubMed:23255084). Plays a role in the regulation of cell migration (Probable). During myogenesis, it is involved in myocyte fusion (By similarity). Soluble form of JAM-C. Promotes chemotaxis of vascular endothelial cells and stimulates angiogenesis.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab318985 is the carrier-free version of ab318984.

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-C (JAM-C) is a cell adhesion molecule belonging to the immunoglobulin superfamily also known as JAM3. It has a mass around 37 kDa. JAM-C is present on endothelial cells various immune cells and some epithelial cells. This protein functions mechanically in maintaining tight junctions that control paracellular permeability and are important in cell-to-cell interactions.
Biological function summary	Junctional adhesion molecule-C plays significant roles in leukocyte migration angiogenesis and the maintenance of vascular endothelial barrier function. JAM-C is part of a larger junctional adhesion molecule complex which includes JAM-A and JAM-B that collectively influence these processes. Its expression in tissues such as the heart and brain suggests specialized roles in physiological functions including cardiovascular regulation and CNS barriers.
Pathways	Junctional adhesion molecule-C is an integral component of the leukocyte transmigration and angiogenesis pathways. These pathways collaborate to allow immune cells to pass through vessel walls a fundamental process in immune surveillance and response. Additionally JAM-C interacts with integrins and other adhesion molecules facilitating cellular communication necessary for tissue repair and growth.
Associated diseases and disorders	Dysregulation of junctional adhesion molecule-C expression associates with inflammatory diseases and cancer. Altered JAM-C levels have implications in

autoimmune disorders where abnormal leukocyte extravasation occurs. Its connection to cancer involves interactions with proteins like VE-cadherin contributing to increased tumor angiogenesis and metastasis making it a potential target for therapeutic intervention in these conditions.

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

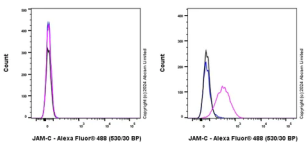
We do not recommend this combination. It is not covered by our product promise.

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



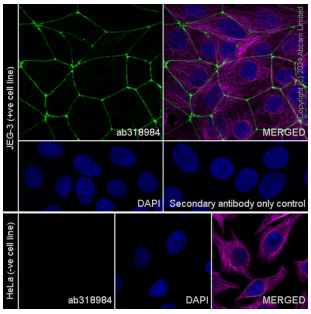
Flow Cytometry - Anti-JAM-C antibody [EPR29224-576] - BSA and Azide free (ab318985)

This data was developed using ab318984, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of JEG-3 (human placenta epithelial cell) (Right) / HeLa (human cervical adenocarcinoma epithelial cell) (Left) cells labelling JAM-C with ab318984 at 1/500 dilution (0.1ug) (Magenta) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: HeLa (PMID: 19143587).



Immunocytochemistry/ Immunofluorescence - Anti-JAM-C antibody [EPR29224-576] - BSA and Azide free (ab318985)

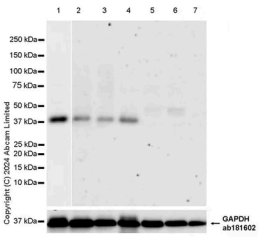
This data was developed using ab318984, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized JEG-3 (human placenta epithelial cell) cells labelling JAM-C with ab318984 at 1/50 (10.02 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/mL dilution (Green).

Confocal image showing membrane staining in JEG-3 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue).
Negative control: HeLa (PMID: 19143587).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/mL dilution.



Western blot - Anti-JAM-C antibody [EPR29224-576] - BSA and Azide free (ab318985)

This data was developed using ab318984, the same antibody clone in a different buffer formulation.

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

Negative control: HeLa, Caco-2 (PMID: 19143587), MCF7.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

Exposure time: Lane 1: 37 seconds, lanes 2-7: 180 seconds

All lanes:

Western blot - Anti-JAM-C antibody [EPR29224-576] (ab318984) at 1/1000 dilution

Lane 1:
RD (human muscle multinucleated spindle-shaped cell) whole cell lysate at 50 µg

Lane 2:
Jurkat (human T cell leukemia T lymphocyte from peripheral blood) whole cell lysate at 50 µg

Lane 3:
HEK-293 (human embryonic kidney epithelial cell) whole cell lysate at 50 µg

Lane 4:
JEG-3 (human placenta epithelial cell) whole cell lysate at 50 µg

Lane 5:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 50 µg

Lane 6:
Caco-2 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 50 µg

Lane 7:
MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate at 50 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 37 kDa, 36 kDa

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