abcam

ab237384

Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20533-63]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
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	EPR20533-63
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

Flow Cyt

Tested

Species	Mouse
Dilution info	1/50 - 1/500
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/200
Notes	This product gave a positive signal in 4T1 cells fixed with 100% methanol (5 min)

IHC-P

Expected

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

Target data

See full target information EpCAM/CD326

Function	May act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for providing immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation and differentiation. Up-regulates the expression of FABP5, MYC and cyclins A and E (By similarity).

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, Stable for 12 months at -20°C, Store in the dark

Notes

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.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	EpCAM also known as epithelial cell adhesion molecule is a transmembrane glycoprotein with a molecular weight of around 40 kDa. Alternative names include CD326 and TACSTD1. This protein is expressed on the surface of most epithelial cells and plays a role in cell adhesion. It is involved in maintaining the integrity of epithelial tissues by mediating homotypic cell-cell interactions which are important for the structure and function of tissues.
Biological function summary	EpCAM facilitates signaling pathways that impact cellular processes like proliferation and differentiation. It is not a part of a larger protein complex but interacts directly with other cellular machinery to transmit intracellular signals.

	EpCAM influences stem cell behavior and is important in tissue homeostasis assisting in both normal regenerative processes and wound healing.
Pathways	EpCAM participates in regulatory mechanisms involving the Wnt/β-catenin signaling pathway which affects gene expression and cell fate decisions. Through its action EpCAM modulates components like E-cadherin which is important for cell adhesion and the maintenance of the epithelial layer. It indirectly influences pathways relating to MYC a transcription factor that regulates cell cycle progression and apoptosis.
Associated diseases and disorders	EpCAM is associated with various types of cancer including colorectal and breast cancer. Its overexpression often correlates with aggressive cancer phenotypes and poor prognosis. Besides cancers EpCAM mutations can lead to congenital tufting enteropathy a rare condition affecting intestinal epithelial structure and function. Aberrant EpCAM expression affects β-catenin levels impacting cellular pathways linked to tumor progression and epithelial integrity.

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

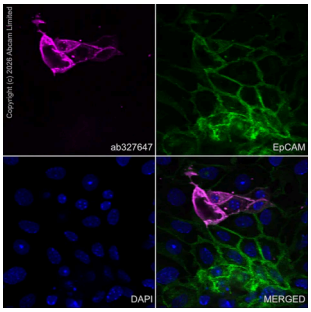
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images



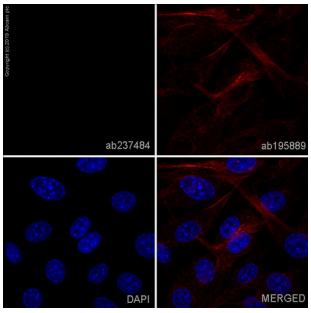
Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20533-63] (ab237384)

EpCAM/CD326 Immunocytochemistry/ Immunofluorescence staining of Mouse kidney cell using rabbit Anti-EpCAM/CD326 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Mouse kidney cell cells labelling Aquaporin 3 with ab327647 at 1/50 (10.18 µg/ml) dilution, followed by ab150088 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) preadsorbed (ab150088) antibody at 1/1000 dilution (Green).

Confocal image showing membranous staining in mouse primary kidney cells (shown in green), which is partially co-stained with the EpCAM marker. The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab237384 Anti-EpCAM rabbit monoclonal antibody (Alexa Fluor® 488) was used to counterstain EpCAM at 1/50 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

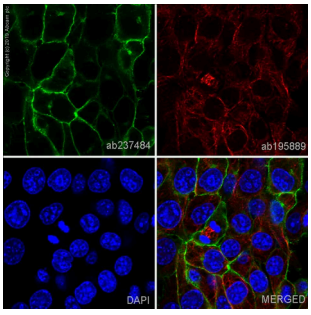


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20533-63] (ab237384)

EpCAM/CD326 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-EpCAM/CD326 antibody

ab237384 showing no staining of EpCAM in NIH3T3 cells. The cells were fixed with 100% methanol (5 min), and then incubated in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h to permeabilize the cells and block non-specific protein-protein interactions.
The cells were then incubated overnight at +4°C with ab237384 at 1/200 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

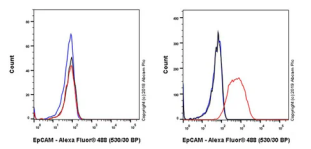


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20533-63] (ab237384)

EpCAM/CD326 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-EpCAM/CD326 antibody

ab237384 staining EpCAM in 4T1 cells. The cells were fixed with 100% methanol (5 min), and then incubated in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h to permeabilize the cells and block non-specific protein-protein interactions.
The cells were then incubated overnight at +4°C with ab237384 at 1/200 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

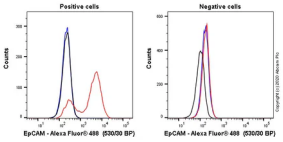


Flow Cytometry - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20533-63] (ab237384)

EpCAM/CD326 Flow Cytometry staining using rabbit Anti-EpCAM/CD326 antibody

Flow cytometric analysis of unfixed 4T1 (right) and NIH/3T3 (left) cells with ab237384 (red line). The cells were incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab237384, 1/50 dilution) for 30 min at 22°C.
Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 488 (ab199091) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 20mW solid-state laser (488nm) and 530/30 bandpass filter.



Flow Cytometry - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20533-63] (ab237384)

EpCAM/CD326 Flow Cytometry staining using rabbit Anti-EpCAM/CD326 antibody

Flow cytometry overlay histogram showing M158 positive cells (left) and negative NIH/3T3 cells (right) stained with ab237384 (red line). The cells were incubated in 1x PBS containing 10 % normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab237384) (1x 10^6 in 100 µl at 1 µg/ml (1/500)) for 30 min on ice.
Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor 488® (ab199091) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

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