abcam

ab237395

Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225]

Anti-EpCAM/CD326 antibody [EPR20532-225] - Alexa Fluor® 488 conjugated (ab237395) is a rabbit recombinant monoclonal antibody detecting EpCAM/CD326 in **Flow Cytometry, ICC/IF, and IHC-p**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency

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	EPR20532-225
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	Human
Dilution info	1/500
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	This product gave a positive signal in HT-29 cells fixed with 100% methanol (5 min)

IHC-P

Tested

Species	Human
Dilution info	1/50
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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.

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

What is this antibody validated in?
Alexa Fluor® 488 Anti-EpCAM antibody [EPR20532-225] (ab237395) is a rabbit recombinant monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF), and Immunohistochemistry (IHC-p) in Human samples.

Related products
Antibody clone EPR20532-225 is also available pre-conjugated to a variety of labels for your convenience – Anti-EpCAM Alexa Fluor® 488 [EPR20532-225] (ab237395).

Other related products
We have a range of other formats of antibody clone [EPR20532-225] also available for your convenience: ab223582, Carrier free - ab225894, Alexa Fluor® 488 - ab237395, Alexa Fluor® 647 - ab237396, PE - ab237397, APC - ab237398, Alexa Fluor® 594 - ab286811, Biotin - ab314940

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.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research,

contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

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/B-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 B-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

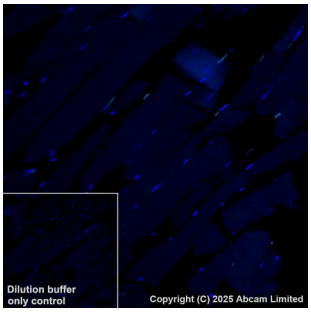
We do not recommend this combination. It is not covered by our product promise.

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.

8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

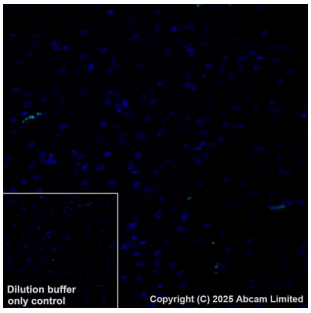
EpCAM/CD326 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human skeletal muscle tissue using rabbit Anti-EpCAM/CD326 antibody

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling EpCAM with ab237395 at 1/50 (10 µg/ml) dilution.
Negative control: no staining on human skeletal muscle.

The primary antibody was incubated overnight at 4°C (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

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

Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

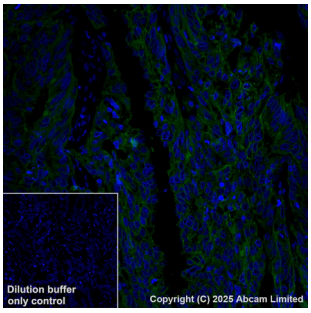
EpCAM/CD326 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebrum tissue using rabbit Anti-EpCAM/CD326 antibody

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling EpCAM with ab237395 at 1/50 (10 µg/ml) dilution.
Negative control: no staining on human cerebrum.

The primary antibody was incubated overnight at 4°C (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

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

Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

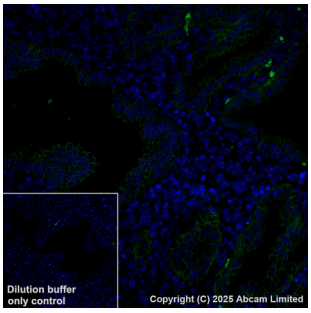
EpCAM/CD326 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human colon cancer tissue using rabbit Anti-EpCAM/CD326 antibody

Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labeling EpCAM with ab237395 at 1/50 (10 µg/ml) dilution.
Membrane staining on human colon cancer.

The primary antibody was incubated overnight at 4°C (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

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

Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

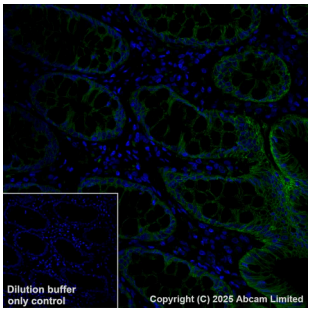
EpCAM/CD326 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human endometrium tissue using rabbit Anti-EpCAM/CD326 antibody

Immunohistochemical analysis of paraffin-embedded human endometrium tissue labeling EpCAM with ab237395 at 1/50 (10 µg/ml) dilution.
Membrane staining on human endometrium.

The primary antibody was incubated overnight at 4°C (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

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

Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

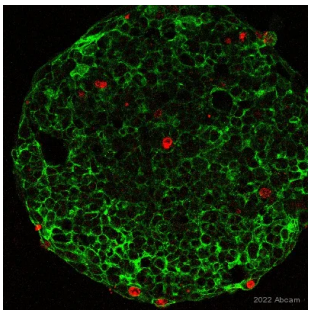
EpCAM/CD326 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human colon tissue using rabbit Anti-EpCAM/CD326 antibody

Immunohistochemical analysis of paraffin-embedded human colon tissue labeling EpCAM with ab237395 at 1/50 (10 µg/ml) dilution.
Membrane staining on human colon.

The primary antibody was incubated overnight at 4°C (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

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

Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0).

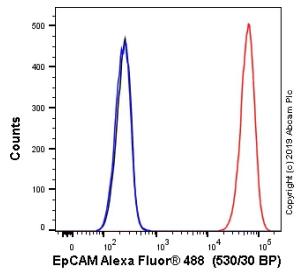


This image is courtesy of a customer review submitted by Tania Cruz

Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

EpCAM/CD326 Immunocytochemistry/ Immunofluorescence staining of rectal cancer spheroids SW837 using rabbit Anti-EpCAM/CD326 antibody

Immunocytochemistry analysis of buffered formalin-fixed rectal cancer spheroids, SW837 permeabilized with 0.05% Tween20, staining with ab237395 at 1/100 dilution. Cells were incubated with the primary antibody with Blocking solution for 12 hours at 4°C. Blocking was done with 1% BSA + 10% FBS for 1 hour at 25°C.

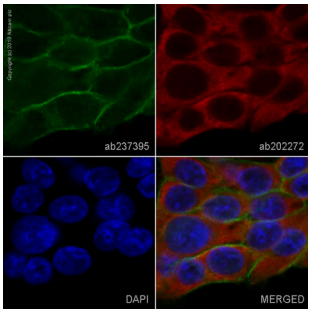


Flow Cytometry - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

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

Overlay histogram showing HT-29 cells stained with ab237395 (red line).
The cells were incubated in 1x PBS/10% normal Goat serum to block non-specific protein-protein interactions followed by the antibody (ab237395) ($1x10^6$ in 100 µl at 1 µg/ml (1/500)) 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. Unlabeled 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.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-EpCAM/CD326 antibody [EPR20532-225] (ab237395)

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

ab237395 staining EpCAM in HT-29 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab237395 at 1/1000 dilution (shown in green) and ab202272, Rabbit monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labeled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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