abcam

ab187372

Anti-EpCAM/CD326 antibody [VU-1D9]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	VU-1D9
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/250
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/1000
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.

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

Notes

This product was switched from a hybridoma to a recombinant production format on 26th October 2021.
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.

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

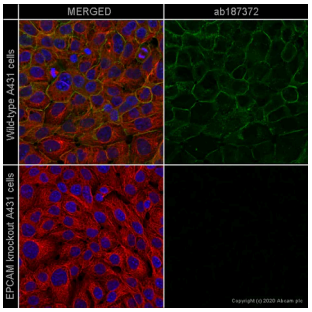
We do not recommend this combination. It is not covered by our product promise.

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.

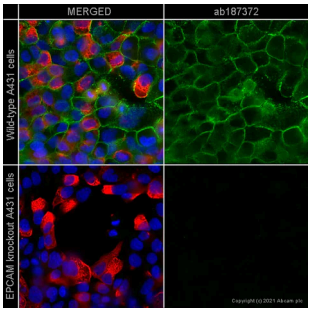
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-EpCAM/CD326 antibody [VU-1D9] (ab187372)

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

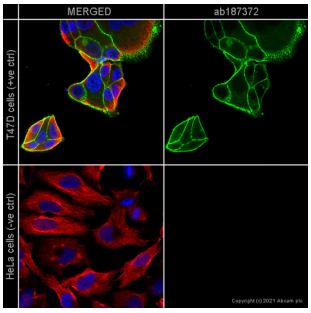
ab187372 staining EpCAM in wild-type A431 cells (top panel) and EpCAM knockout A431 cells (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab187372 at 0.5µg/ml concentration and ab6046 (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (ab150117) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (ab150080) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-EpCAM/CD326 antibody [VU-1D9] (ab187372)

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

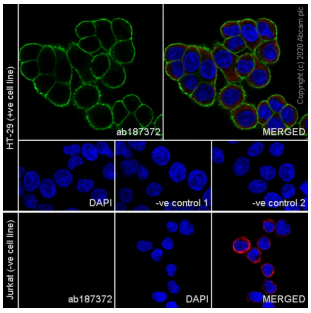
ab187372 staining EpCAM in wild-type A431 cells (top panel) and EpCAM knockout A431 cells (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab187372 at 0.1µg/ml concentration and ab6046 (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (ab150117) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (ab150080) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. This antibody performed similarly using 100% methanol fixation. Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a single confocal section is shown.



Immunocytochemistry/ Immunofluorescence - Anti-EpCAM/CD326 antibody [VU-1D9] (ab187372)

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

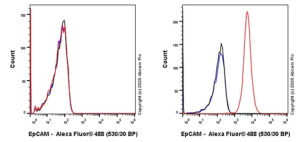
ab187372 staining EpCAM in T47D positive cells (top panel) and HeLa negative cells (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min) then permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab187372 at 1µg/ml concentration and ab6046 (Rabbit polyclonal to beta Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to mouse IgG (Alexa Fluor® 488) (ab150117) at 2 µg/ml (shown in green) and a goat secondary antibody to rabbit IgG (Alexa Fluor® 594) (ab150080) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI. This antibody performed similarly using 100% methanol fixation. Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a single confocal section is shown.



Immunocytochemistry/ Immunofluorescence - Anti-EpCAM/CD326 antibody [VU-1D9] (ab187372)

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

ab187372 staining EpCAM in HT-29 cell line (top panel) and Jurkat negative cells (bottom panel). The cells were fixed with 4% paraformaldehyde then permeabilized with 0.1% TritonX-100. The cells were then incubated with ab187372 at 1/250 concentration and counterstained with ab179513 (Anti-beta Tubulin rabbit monoclonal antibody) at 1/200 dilution, followed by secondary antibody ab150113 (Goat Anti-Mouse IgG H&L (Alexa Fluor® 488)) at 1/1000 dilution (shown in green) and counterstained with ab150080 (Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594)) at 1/500 dilution (shown in red). Nuclear DNA was labelled in blue with DAPI.
Confocal image showing membranous staining in HT-29 cell line.
Negative control: Jurkat (PMID: 29352248)



Flow Cytometry - Anti-EpCAM/CD326 antibody [VU-1D9] (ab187372)

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

Flow cytometric analysis of Jurkat (Human T cell leukemia T lymphocyte, Left) / HT-29 (Human colorectal adenocarcinoma epithelial cell, Right) labeling EpCAM with ab187372 at 1/1000 dilution, followed by secondary antibody ab150113 (Goat anti mouse IgG (Alexa Fluor® 488)) at 1/2000 dilution (Red). Compared with a Mouse monoclonal IgG isotype control (Black) and an unlabelled control (Cell without incubation with primary antibody and secondary antibody) (Blue). Gated on viable cells.
Negative control: Jurkat (PMID: 29352248)

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