abcam

Product datasheet

Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free ab219364

Recombinant RabMAb

12 Images

Overview

Product name	Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free
Description	Rabbit monoclonal [EPR677(2)] to EpCAM - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HCT116, A431 and HT29 cell lysates. IHC-P: Human colon adenocarcinoma, colon, endometrial adenocarcinoma and stomach adenocarcinoma tissues.
General notes	ab219364 is the carrier-free version of **ab124825**. Produced using a non-baculovirus eukaryotic cell expression system. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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 production For more information **see here**.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR677(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219364 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 39 kDa (predicted molecular weight: 35 kDa). Western blots of mouse and rat samples are negative.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Heat up to 98 degrees C, below boiling, and then let cool for 10-20 min.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

Target

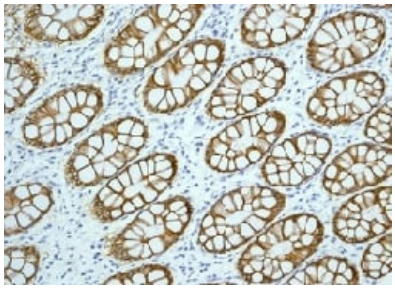
Function May act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for providing immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation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

Tissue specificity Highly and selectively expressed by undifferentiated rather than differentiated embryonic stem cells (ESC). Levels rapidly diminish as soon as ESC's differentiate (at protein levels). Expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinoma.

Involvement in disease Defects in EPCAM are the cause of diarrhea type 5 (DIAR5) [MIM:613217]. It is an intractable diarrhea of infancy characterized by villous atrophy and absence of inflammation, with intestinal

	epithelial cell dysplasia manifesting as focal epithelial tufts in the duodenum and jejunum. Defects in EPCAM are a cause of hereditary non-polyposis colorectal cancer type 8 (HNPCC8) [MIM:613244]. HNPCC is a disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to early-onset colorectal carcinoma (CRC) and extra-colonic tumors of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world. Clinically, HNPCC is often divided into two subgroups. Type I is characterized by hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II is characterized by increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected. Note=HNPCC8 results from heterozygous deletion of 3-prime exons of EPCAM and intergenic regions directly upstream of MSH2, resulting in transcriptional read-through and epigenetic silencing of MSH2 in tissues expressing EPCAM.
Sequence similarities	Belongs to the EPCAM family. Contains 1 thyroglobulin type-1 domain.
Post-translational modifications	Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia. Glycosylation at Asn-198 is crucial for protein stability.
Cellular localization	Lateral cell membrane. Cell junction > tight junction. Co-localizes with CLDN7 at the lateral cell membrane and tight junction.

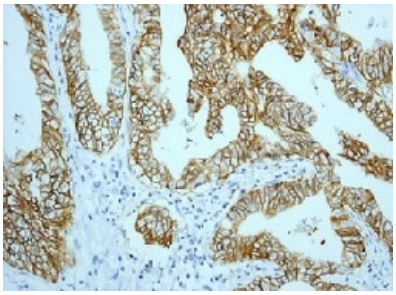
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825, at 1/100 dilution, staining EpCAM in paraffin-embedded Human colon tissue by Immunohistochemistry. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

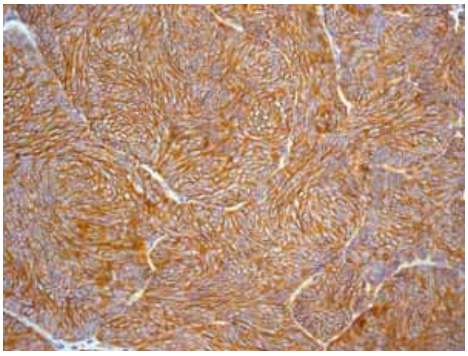
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825, at 1/100 dilution, staining EpCAM in paraffin-embedded Human endometrial adenocarcinoma tissue by Immunohistochemistry. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

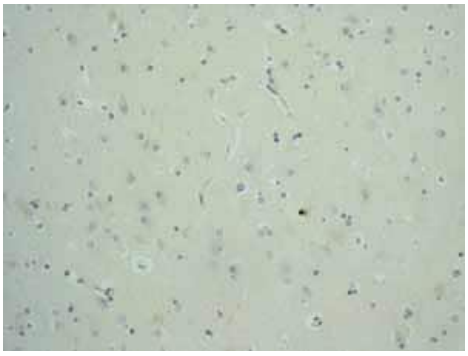
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825 showing positive staining in Urinary bladder transitional carcinoma tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

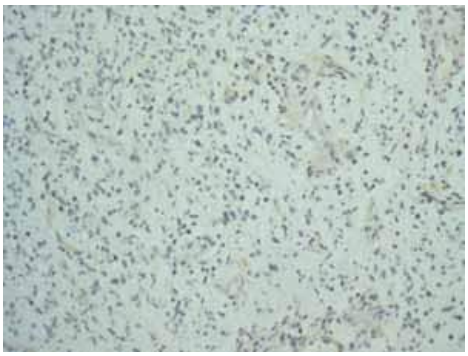
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825 showing negative staining in Normal brain tissue. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).

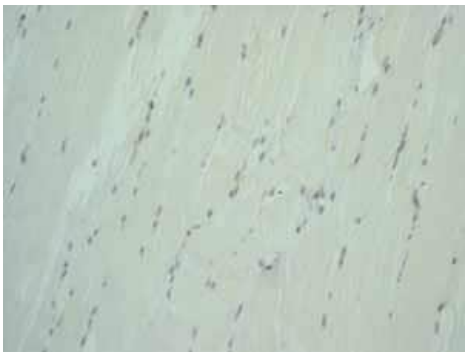


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825 showing negative staining in Glioma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

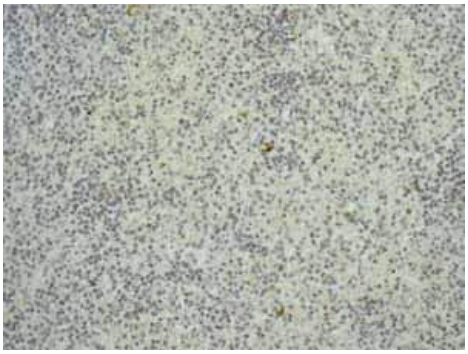


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825 showing negative staining in Skeletal muscle tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

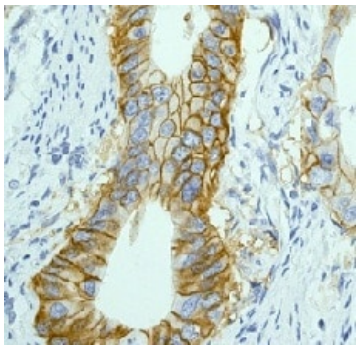


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825 showing negative staining in Normal tonsil tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).

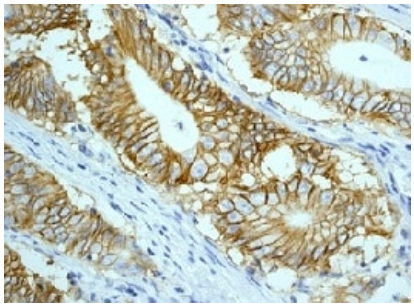
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

ab124825, at 1/100 dilution, staining EpCAM in paraffin-embedded Human stomach adenocarcinoma tissue by Immunohistochemistry. Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

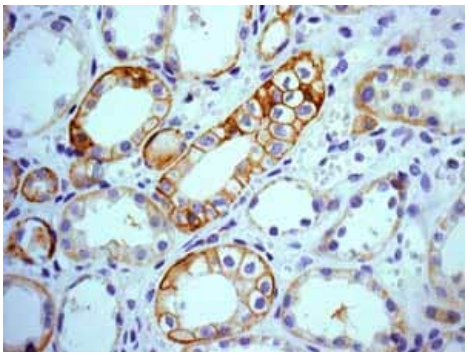
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab124825**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

This IHC data was generated using the same anti-EpCAM antibody clone, EPR677(2), in a different buffer formulation (cat# **ab124825**). Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

ab124825, at 1/100 dilution, staining EpCAM in paraffin-embedded Human colon adenocarcinoma tissue by Immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

This IHC data was generated using the same anti-EpCAM antibody clone, EPR677(2), in a different buffer formulation (cat# **ab124825**). Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.

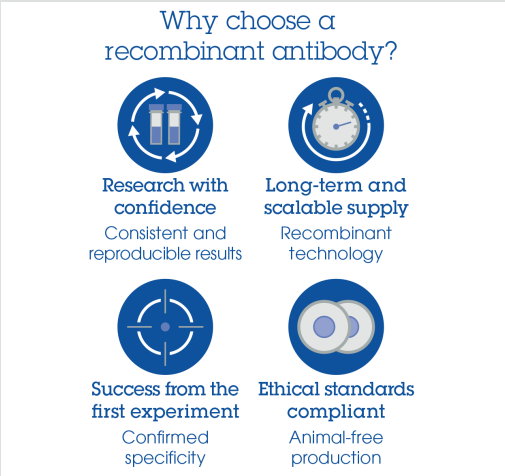
ab124825 showing positive staining in Normal kidney tissue.

Tissue Microarray (TMA) data for ab124825

Normal tissue samples				Malignant tissue samples			
Human cardiac muscle	x	Human placenta	x	Clear cell carcinoma of human kidney	x	Human glioma	x
Human cerebrum	x	Human skeletal muscle	x	Human bladder cancer	✓	Human hepatocellular carcinoma	x
Human colon	✓	Human skin	✓	Human breast carcinoma	x	Human lung carcinoma	✓
Human endometrium	✓	Human spleen	x	Human cervical carcinoma	x	Human ovarian carcinoma	✓
Human kidney	✓	Human stomach	x	Human colon carcinoma	✓	Human pancreatic carcinoma	x
Human liver	x	Human testis	x	Human endometrial carcinoma	✓	Human prostatic hyperplasia	x
Human lung	x	Human thyroid	x	Human gastric carcinoma	✓	Human thyroid carcinoma	x
Human mammary gland	✓	Human tonsil	x				
Human pancreas	✓						

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

Tissue Microarrays stained for " Anti-EpCAM antibody [EPR677(2)]" using " **ab124825**" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with **ab124825** for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Anti-EpCAM antibody [EPR677(2)] - BSA and Azide free (ab219364)

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