

Product datasheet

Anti-EpCAM antibody [Ber-EP4] ab7504

★★★★★ 4 Abreviews 14 References 2 Images

Overview

Product name	Anti-EpCAM antibody [Ber-EP4]
Description	Mouse monoclonal [Ber-EP4] to EpCAM
Host species	Mouse
Specificity	Epithelial specific antigen is cell surface glycoprotein and is broadly distributed in epithelial cells and displays a highly conserved expression in carcinomas. Epithelial specific antigen has been know to play an important role as tumor-cell marker in lymph nodes from patients with esophageal carcinoma. Epithelial specific antigen can be used to distinguish between basal cell and basosquamous carcinomas and squamous cell carcinoma of the skin.
Tested applications	Suitable for: IHC-FoFr, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Tissue, cells or virus corresponding to Human EpCAM. MCF-7 cells.
Positive control	Kidney tissue sections.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.3 Preservative: 0.05% Sodium azide Constituents: Tissue culture supernatant, 1% BSA
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	Ber-EP4

Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab7504 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
IHC-FoFr		Use at an assay dependent concentration.
IHC-P	★★★★★ (2)	1/50 - 1/150. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

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.

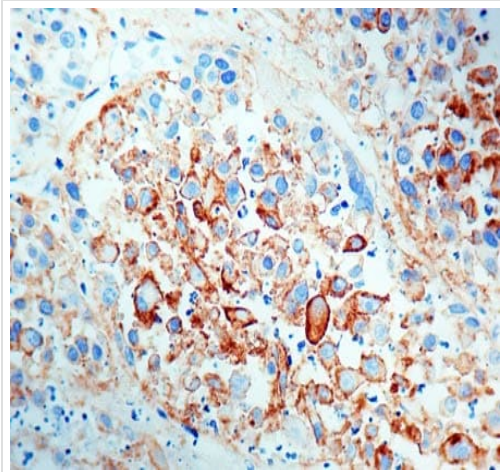
Post-translational modifications

Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia. Glycosylation at Asn-198 is crucial for protein stability.

Cellular localization

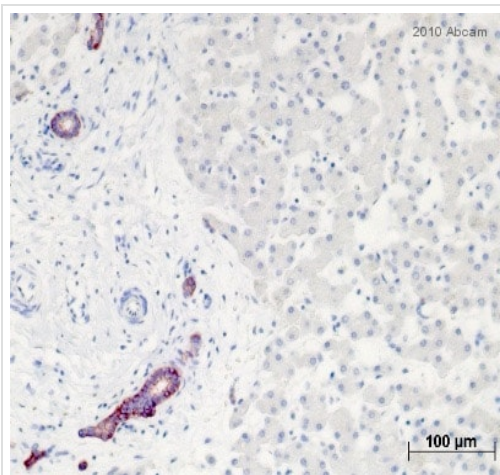
Lateral cell membrane. Cell junction > tight junction. Co-localizes with CLDN7 at the lateral cell membrane and tight junction.

Images



ab7504 staining EpCAM in formalin-fixed, paraffin-embedded Human breast carcinoma tissue by Immunohistochemistry. Staining was detected using DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [Ber-EP4] (ab7504)



ab7504 staining EpCAM in Human liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% serum for 1 hour at 20°C; antigen retrieval was by heat mediation (microwave) in a commercial retrieval buffer. Samples were incubated with primary antibody (1/250 in 1% serum) for 12 hours at 4°C. A Biotin-conjugated Horse anti-mouse IgG polyclonal (1/200) was used as the secondary antibody.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-EpCAM antibody [Ber-EP4] (ab7504)

This image is courtesy of an Abreview submitted by Eva Schmelzer

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