

Product datasheet

Biotin Anti-EpCAM antibody [VU-1D9] ab79079

[6 References](#) [1 Image](#)

Overview

Product name	Biotin Anti-EpCAM antibody [VU-1D9]
Description	Biotin Mouse monoclonal [VU-1D9] to EpCAM
Host species	Mouse
Conjugation	Biotin
Specificity	<p>We have data to indicate that this antibody may not cross react with Rat or ferret. However, this has not been conclusively tested and expression levels may vary in certain cell lines/tissues.</p> <p>ab79079 is a 40-43kDa transmembrane epithelial glycoprotein, also identified as epithelial specific antigen (ESA), or epithelial cellular adhesion molecule (Ep-CAM). It is expressed on baso-lateral cell surface in most simple epithelia and a vast majority of carcinomas. This antibody has been used to distinguish adenocarcinoma from pleural mesothelioma and hepatocellular carcinoma. This antibody is also useful in distinguishing serous carcinomas of the ovary from mesothelioma.</p>
Tested applications	Suitable for: IHC-P
Species reactivity	<p>Reacts with: Human</p> <p>Does not react with: Rat, Ferret</p>
Immunogen	<p>Tissue, cells or virus corresponding to Human EpCAM. Small cell lung carcinoma cells</p> <p>Database link: P16422</p>
Positive control	Human colon carcinoma tissue.
General notes	<p>This product was changed from ascites to tissue culture supernatant on 29th September 2017 and product received after this date will be from tissue culture supernatant.</p> <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
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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: 7.2 Preservative: 0.05% Sodium azide Constituents: 0.41% PBS, 0.05% BSA
Purity	Protein A/G purified
Clonality	Monoclonal
Clone number	VU-1D9
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab79079 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-P		Use a concentration of 1 - 2 µg/ml. Perform enzymatic antigen retrieval before commencing with IHC staining protocol. Incubate for 30 min at RT. Staining of formalin/paraffin tissues requires digestion of tissue sections with pepsin at 1mg/ml Tris-HCl, pH 2.0 for 15 min at RT or 10 min at 37°C.

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.

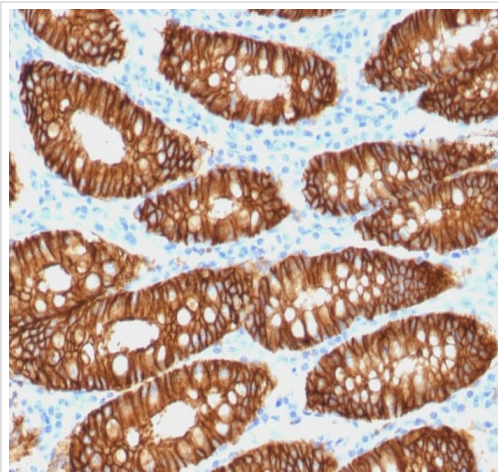
Post-translational modifications

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



ab79079 at 1-2 µg/mL staining EpCAM in human colon carcinoma by Immunohistochemistry, Formalin-fixed, Paraffin-embedded tissue using peroxidase-conjugate and DAB chromogen. Note cell membrane staining of tumor cells.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Biotin Anti-EpCAM antibody [VU-1D9] (ab79079)

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