

Product datasheet

Anti-EpCAM antibody [B302 (323/A3)] ab8601

★★★★☆ 2 Abreviews 9 References 2 图像

概述

产品名称	Anti-EpCAM抗体[B302 (323/A3)]
描述	小鼠单克隆抗体[B302 (323/A3)] to EpCAM
宿主	Mouse
特异性	This antibody stains most epithelial cells and carcinomas. This antibody is a 40 kD epithelial protein expressed on baso-lateral cell surfaces in many epithelial tissue, but absent on mesothelial tissues. This transmembrane protein consists of 342 AA, has 3 glycosylation sites and is a homophillic cell-cell adhesion molecule.
经测试应用	适用于: IHC-FoFr, IHC-Fr, IHC-P, WB, Flow Cyt
种属反应性	与反应: Human
免疫原	MCF-7 human breast cancer cells
阳性对照	Human stomach, colon carcinoma.
常规说明	This antibody is also called Epithelial Cellular Adhesion Molecule (EP-CAM) and Epithelial Specific Antigen (EAS) Prolonged fixation in buffered formalin can destroy the epitope

性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
存储溶液	20 mM tris-borate, 150 mM sodium chloride, dialyzed media RPMI 1640/D-MEM containing fetal bovine serum, BMC-6 carrier polysaccharides, carrier protein, and 0.1% sodium azide, pH 7.5.
纯度	Tissue culture supernatant
克隆	单克隆
克隆编号	B302 (323/A3)
骨髓瘤	unknown
同种型	IgG1
轻链类型	kappa

应用

Our [Abpromise guarantee](#) covers the use of **ab8601** in the following tested applications.

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

应用	Ab评论	说明
IHC-FoFr		Use at an assay dependent concentration.
IHC-Fr		1/50 - 1/60.
IHC-P		1/50 - 1/60. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★☆	1/100 - 1/300. Detects a band of approximately 40 kDa (predicted molecular weight: 35 kDa).
Flow Cyt		Use 2µg for 10 ⁶ cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

靶标

功能

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.

组织特异性

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.

疾病相关

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.

序列相似性

Belongs to the EPCAM family.

Contains 1 thyroglobulin type-1 domain.

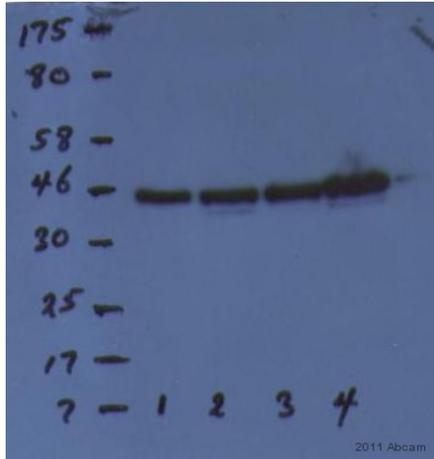
翻译后修饰

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

细胞定位

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

图片



Western blot - Anti-EpCAM antibody [B302
(323/A3)] (ab8601)

This image is courtesy of an Abreview submitted by
Olayinka Oloko.

All lanes : Anti-EpCAM antibody [B302
(323/A3)] (ab8601) at 1/300 dilution

All lanes : Human Prostate cell lysate.

Lysates/proteins at 0.5 µg per lane.

Secondary

All lanes : HRP-conjugated Goat anti-Mouse.
at 1/10000 dilution

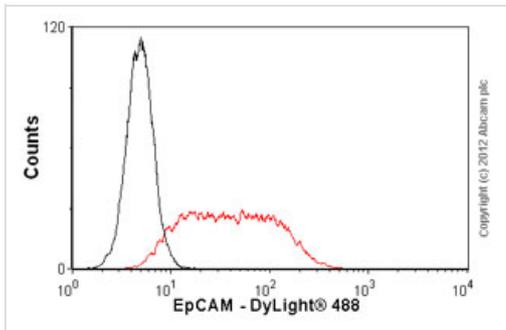
Developed using the ECL technique.

Performed under non-reducing conditions.

Predicted band size: 35 kDa

Observed band size: 40 kDa

Exposure time: 15 minutes



Flow Cytometry - Anti-EpCAM antibody [B302 (323/A3)] (ab8601)

Overlay histogram showing DU145 cells stained with ab8601 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab8601, 2 μ g/ 1×10^6 cells for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was Mouse IgG1 [ICIGG1] (ab91353, 2 μ g/ 1×10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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