# abcam

## Product datasheet

## Anti-EpCAM antibody [E144] ab32392





★★★★★ 19 Abreviews 59 References 5 图像

#### 概述

产品名称 Anti-EpCAM抗体[E144]

描述 兔单克隆抗体[E144] to EpCAM

宿主 Rabbit

经测试应用 适用于: WB

不适用于: ICC/IF,IHC-Fr or IP

种属反应性 与反应: Mouse, Rat, Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: HCT 116, A431, MCF7, Mouse colon tissue, and Rat colon tissue.

常规说明 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**.

### 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 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

纯度 Protein A purified

克隆 单克隆 克隆编号 E144 同种型 ΙgG

#### The Abpromise guarantee

## Abpromise™承诺保证使用ab32392于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	<b>★★★★ (3)</b>	1/1000 - 1/10000. Predicted molecular weight: 39 kDa.

应用说明

Is unsuitable for ICC/IF,IHC-Fr or IP.

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 extracolonic 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

 $\label{thm:linear} \mbox{Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia.}$ 

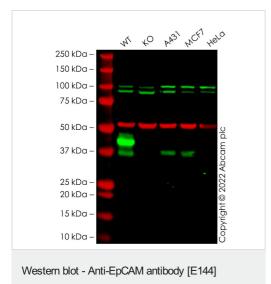
Glycosylation at Asn-198 is crucial for protein stability.

细胞定位

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

membrane and tight junction.

(ab32392)



**All lanes :** Anti-EpCAM antibody [E144] (ab32392) at 1/1000 dilution

Lane 1: Wild-type HCT 116 cell lysate

Lane 2: EPCAM knockout HCT 116 cell lysate

Lane 3 : A431 cell lysate

Lane 4 : MCF7 cell lysate

Lane 5 : HeLa cell lysate

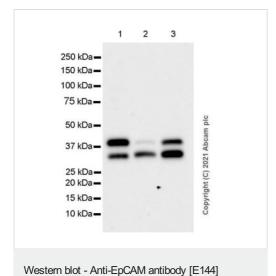
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 39 kDa

Observed band size: 37-45 kDa

False colour image of Western blot: Anti-EpCAM antibody [E144] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab32392 was shown to bind specifically to EpCAM. A band was observed at 37/45 kDa in wildtype HCT 116 cell lysates with no signal observed at this size in EPCAM knockout cell line ab281596 (knockout cell lysate ab282948). To generate this image, wild-type and EPCAM knockout HCT 116 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.



(ab32392)

**All lanes :** Anti-EpCAM antibody [E144] (ab32392) at 1/1000 dilution

Lane 1: Mouse colon tissue lysate

Lane 2: Rat small intestine tissue lysate

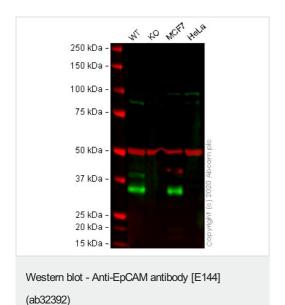
Lane 3: Rat colon tissue lysate

Lysates/proteins at 20 µg per lane.

## Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution (Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated)

Predicted band size: 39 kDa



**All lanes :** Anti-EpCAM antibody [E144] (ab32392) at 1/2000 dilution

Lane 1: Wild-type A431 cell lysate

Lane 2: EPCAM knockout A431 cell lysate

Lane 3: MCF7 (Human breast adenocarcinoma cell line) whole

cell lysate

Lane 4: HeLa (Human epithelial cell line from cervix

adenocarcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

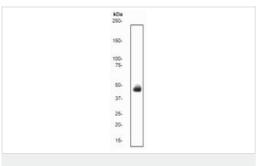
Alpha Tubulin [DM1A] observed at 55kDa.

Predicted band size: 39 kDa Observed band size: 40 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab32392 observed at 40 kDa. Red - loading control ab7291 (Mouse anti-

ab32392 was shown to react with EpCAM in wild-type A431 cells in western blot with loss of signal observed in EpCAM knockout

sample. Wild-type and EpCAM knockout A431 cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab32392 and <a href="mailto:ab7291">ab7291</a> (Mouse anti-Alpha Tubulin [DM1A] overnight at 4°C at a 1 in 2000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit lgG H&L (IRDye® 800CW) preabsorbed (<a href="mailto:ab216773">ab216773</a>) and Goat anti-Mouse lgG H&L (IRDye® 680RD) preabsorbed (<a href="mailto:ab216776">ab216776</a>) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Anti-EpCAM antibody [E144] (ab32392) at 1/2500 dilution + A431 cell lysate

Predicted band size: 39 kDa

Western blot - Anti-EpCAM antibody [E144] (ab32392)



Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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