# abcam

# Product datasheet

# Anti-EpCAM antibody ab231223

# 3 Images

#### Overview

Product name Anti-EpCAM antibody

**Description** Rabbit polyclonal to EpCAM

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Chicken

Immunogen Recombinant fragment (His-T7-tag) corresponding to Chicken EpCAM aa 1-300. Linked with

LEHHHHHH. Expressed in E.coli.

Database link: Q5F381

Run BLAST with
Run BLAST with

Positive control WB: Recombinant chicken EpCAM protein; Chicken kidney and stomach lysate.

**General notes**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.

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

#### **Properties**

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: 44.12% PBS, 55.77% Glycerol (glycerin, glycerine)

Purity Immunogen affinity purified

**Purification notes**Antigen-specific affinity chromatography followed by Protein A affinity chromatography.

**Clonality** Polyclonal

**Isotype** IgG

1

#### **Applications**

#### The Abpromise guarantee

Our Abpromise guarantee covers the use of ab231223 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 a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 34 kDa.

#### **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 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.

# Sequence similarities

Belongs to the EPCAM family.

Contains 1 thyroglobulin type-1 domain.

Post-translational modifications

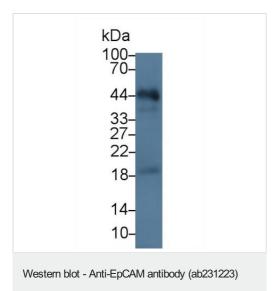
 $\label{thm:linear} \mbox{Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia.}$ 

Glycosylation at Asn-198 is crucial for protein stability.

**Cellular localization** 

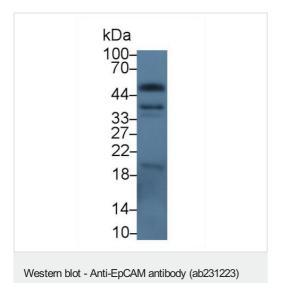
Lateral cell membrane. Cell junction > tight junction. Co-localizes with CLDN7 at the lateral cell

membrane and tight junction.



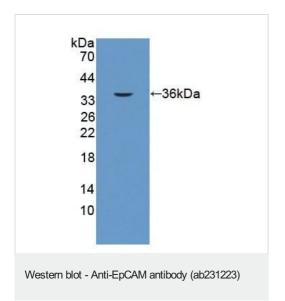
Anti-EpCAM antibody (ab231223) at 3  $\mu g/ml$  + Chicken stomach lysate

Predicted band size: 34 kDa



Anti-EpCAM antibody (ab231223) at 3  $\mu$ g/ml + Chicken kidney lysate

Predicted band size: 34 kDa



Anti-EpCAM antibody (ab231223) at 2  $\mu$ g/ml + Recombinant chicken EpCAM protein

Predicted band size: 34 kDa

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

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