

EPCAM Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1929a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P16422
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7B5C10
Isotype	IgG1
Calculated MW	34932
Description	This gene encodes a carcinoma-associated antigen and is a member of a family that includes at least two type I membrane proteins. This antigen is expressed on most normal epithelial cells and gastrointestinal carcinomas and functions as a homotypic calcium-independent cell adhesion molecule. The antigen is being used as a target for immunotherapy treatment of human carcinomas. Mutations in this gene result in congenital tufting enteropathy.
Immunogen	Purified recombinant fragment of human EPCAM (AA: 24-265) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide.

Additional Information

Gene ID	4072
Other Names	Epithelial cell adhesion molecule, Ep-CAM, Adenocarcinoma-associated antigen, Cell surface glycoprotein Trop-1, Epithelial cell surface antigen, Epithelial glycoprotein, EGP, Epithelial glycoprotein 314, EGP314, hEGP314, KS 1/4 antigen, KSA, Major gastrointestinal tumor-associated protein GA733-2, Tumor-associated calcium signal transducer 1, CD326, EPCAM, GA733-2, M1S2, M4S1, MIC18, TACSTD1, TROP1
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	EPCAM Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	EPCAM
Synonyms	GA733-2, M1S2, M4S1, MIC18, TACSTD1, TRO
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.
Cellular Location	Lateral cell membrane; Single-pass type I membrane protein. Cell junction, tight junction. Note=Colocalizes with CLDN7 at the lateral cell membrane and tight junction
Tissue Location	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.

Background

The protein encoded by this gene is an isozyme of very long-chain acyl-CoA synthetase (VLCS). It is capable of activating very long-chain fatty-acids containing 24- and 26-carbons. It is expressed in liver and associated with endoplasmic reticulum but not with peroxisomes. Its primary role is in fatty acid elongation or complex lipid synthesis rather than in degradation. This gene has a mouse ortholog. ; ;

References

1. BMC Cancer. 2012 Oct 30;12:501.
2. Am J Surg Pathol. 2012 Dec;36(12):1809-16.

Images

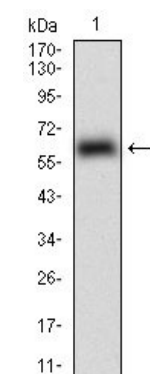


Figure 1: Western blot analysis using EPCAM mAb against human EPCAM (AA: 24-265) recombinant protein. (Expected MW is 53.4 kDa)

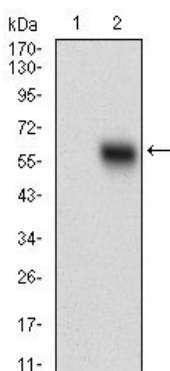


Figure 2: Western blot analysis using EPCAM mAb against HEK293 (1) and EPCAM (AA: 24-265)-hIgGfC transfected HEK293 (2) cell lysate.

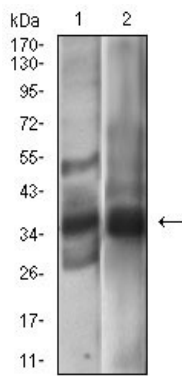


Figure 3: Western blot analysis using EPCAM mouse mAb against A431 (1), MCF-7 (2) cell lysate.

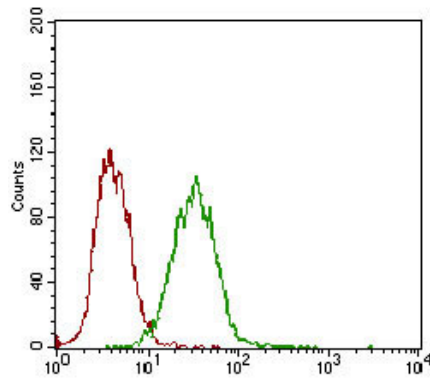


Figure 4: Flow cytometric analysis of A431 cells using EPCAM mouse mAb (green) and negative control (red).

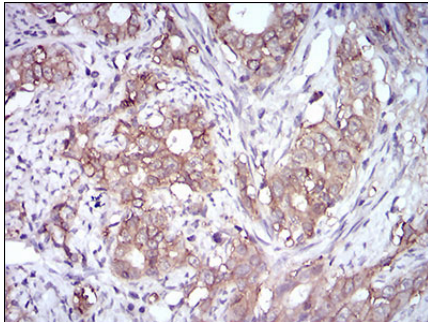


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using EPCAM mouse mAb with DAB staining.

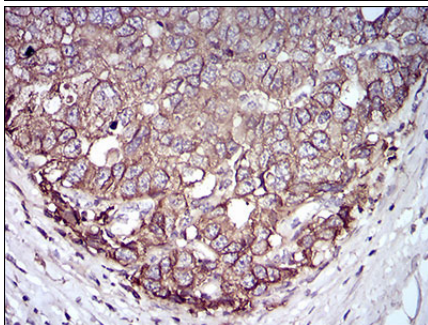


Figure 6: Immunohistochemical analysis of paraffin-embedded esophageal cancer tissues using EPCAM mouse mAb with DAB staining.

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