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EPCAM Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1402a

Product Information

Application	WB, IHC, E
Primary Accession	P16422
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7E11
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.Tissue specificity: This protein is expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinomas.ABCAM:Epithelial Cell Adhesion Molecule (EpCAM) is a 40 kDa cell surface antigen. This antigen has been identified independently by a number of groups, and has been known by a variety of names. Several monoclonal antibodies have been raised against EpCAM, many of which have been described as tumour specific molecules on carcinomas. EpCAM is a Type 1 transmembrane glycoprotein. It is expressed on the basolateral membrane of cells by the majority of epithelial tissues, with the exception of adult squamous epithelium and some specific epithelial cell types including hepatocytes and gastric epithelial cells. EpCAM expression has been reported to be a possible marker of early malignancy, with expression being increased in tumour cells, and de novo expression being seen in dysplastic squamous epithelium.BIOLEGEND:This cell surface, glycosyl;ated 40kD protein is highly expressed in the bone marrow, colon, lung, and most normal epithelial cells and is expressed on carcinomas of gastrointestinal origin.
Immunogen	Purified recombinant fragment of human EPCAM expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% 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 E~~N/A
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.

References

1. Int J Oncol. 2007 Jan;30(1):171-9. 2. Int J Cancer. 2008 Jul 15;123(2):484-9.

Images

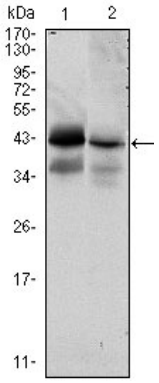

Figure 1: Western blot analysis using EPCAM mouse mAb against HTC116 (1) and T47D (2) cell lysate.

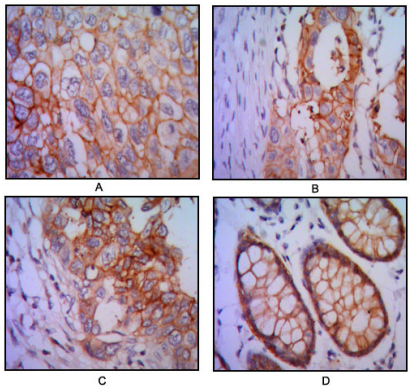

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (A), colon cancer (B), breast cancer (C) and rectal cancer(D), using EPCAM mouse mAb with DAB staining.