# **Anti-EpCAM Antibody [3-E1-E2]**

## EM1111



Product Type: Species reactivity: Applications: Molecular Wt: Clone number:	Mouse monoclonal IgM, primary antibodies Human, Mouse WB, IF-Cell Predicted band size: 35 kDa 3-F1-F2
Description:	Epithelial cell adhesion molecule (EpCAM) is a transmembrane glycoprotein mediating Ca2+- independent homotypic cell-cell adhesion in epithelia. EpCAM is also involved in cell signaling, migration, proliferation, and differentiation. Additionally, EpCAM has oncogenic potential via its capacity to upregulate c-myc, e-fabp, and cyclins A & E. Since EpCAM is expressed exclusively in epithelia and epithelial-derived neoplasms, EpCAM can be used as diagnostic marker for various cancers. It appears to play a role in tumorigenesis and metastasis of carcinomas, so it can also act as a potential prognostic marker and as a potential target for immunotherapeutic strategies. Mutations in EpCAM have also been associated with congenital tufting enteropathy which causes intractable diarrhea in newborn children.
lmmunogen:	Synthetic peptide within human EP-CAM aa 24-265 (Extracellular).
Positive control:	Hela cell lysate, NIH/3T3 cell lysate, MCF-7 cell lysate, D3, A431.
Subcellular location:	Cell membrane
Database links:	SwissProt: P16422 Human   Q99JW5 Mouse
Recommended Dilutions: WB IF-Cell	1:1,000-1:2,000 1:100-1:200
Storage Buffer:	1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Store at +4 $^\circ\!C$ after thawing. Aliquot store at -20 $^\circ\!C$ or -80 $^\circ\!C$ . Avoid repeated freeze / thaw cycles.
Purity:	Protein L affinity purified.

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

#### EM1111 - Page 2

#### Images



Fig1: Western blot analysis of EpCAM on different lysates using anti- EpCAM antibody at 1/1000 dilution. Positive control: Lane 1: Hela cell lysate Lane 2: NIH/3T3 cell lysate Lane 3: MCF-7 cell lysate



**Fig2:** ICC staining EpCAM in D3 cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig3:** ICC staining EpCAM in A431 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

**Fig4:** Immunocytochemistry analysis of NIH/3T3 cells labeling EpCAM with Mouse anti-EpCAM antibody (EM1111) at 1/500 dilution.



Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-EpCAM antibody (EM1111) at 1/500 dilution in 1% BSA in PBST overnight at 4  $^{\circ}$ C. Goat Anti-Mouse IgG H&L (iFluor<sup>TM</sup> 488, HA1125) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) was used as the secondary antibody at 1/1,000 dilution.

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

#### **Background References**

- "The carcinoma-associated antigen EpCAM upregulates c-myc and induces cell proliferation." Muenz M., Kieu C., Mack B., Schmitt B., Zeidler R., Gires O. Oncogene 23:5748-5758(2004)
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- "Glycosylation is crucial for stability of tumour and cancer stem cell antigen EpCAM." Munz M., Fellinger K., Hofmann T., Schmitt B., Gires O. Front. Biosci. 13:5195-5201(2008)
- "Characterization of epithelial cell adhesion molecule as a surface marker on undifferentiated human embryonic stem cells." Ng V.Y., Ang S.N., Chan J.X., Choo A.B. Stem Cells 28:29-35(2010)

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