Anti-EpCAM Antibody [PS01-69]

HA721644

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, IF-Cell, FC
Molecular Wt:	Predicted band size: 35 kDa
Clone number:	PS01-69

Description: EPCAM is a carcinoma-associated antigen and belongs to a family which includes at least 2 type I membrane proteins. The EPCAM protein has a role in embryonic stem cells proliferation and differentiation. EPCAM is used as a target for immunotherapy treatment of human carcinomas. EPCAM is expressed on most normal epithelial cells and gastrointestinal carcinomas and acts as a homotypic calcium-independent cell adhesion molecule. Epithelial cell adhesion molecules (EPCAM) can act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for supplying immunological barrier as a first line of defense against mucosal infection. EPCAM gene mutations result in congenital tufting enteropathy.

Immunogen: Synthetic peptide.

Positive control: Human colon tissue, HT-29.

Subcellular location: Lateral cell membrane, Cell junction.

Database links: SwissProt: P16422 Human

Recommended Dilutions:

IHC-P	1:200
IF-Cell	1:100
FC	1:500-1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

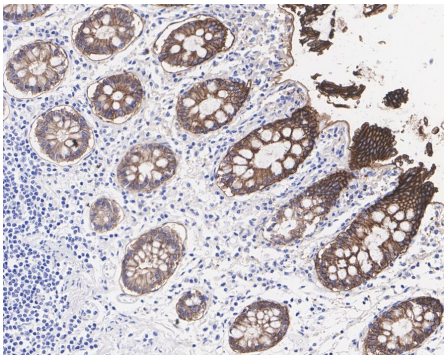

Fig1: Immunohistochemical analysis of paraffin-embedded human colon tissue with Rabbit anti-EpCAM antibody (HA721644) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721644) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

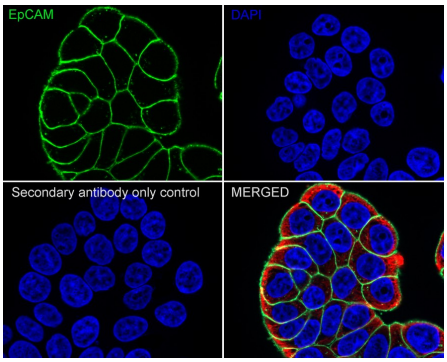

Fig2: Immunocytochemistry analysis of HT-29 cells labeling EpCAM with Rabbit anti-EpCAM antibody (HA721644) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 15 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 Rabbit anti-EpCAM antibody (HA721644) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) 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 (HA601187, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

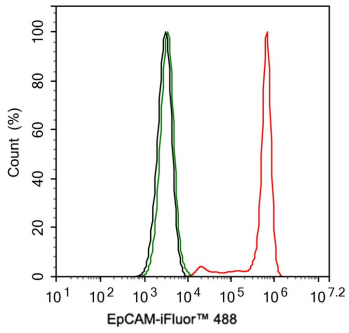

Fig3: Flow cytometric analysis of HT-29 cells labeling EpCAM.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA721644, 1ug/ml) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Guye P et al. Genetically engineering self-organization of human pluripotent stem cells into a liver bud-like tissue using Gata6. Nat Commun 7:10243 (2016).
2. Holditch SJ et al. B-Type Natriuretic Peptide Deletion Leads to Progressive Hypertension, Associated Organ Damage, and Reduced Survival: Novel Model for Human Hypertension. Hypertension 66:199-210 (2015).