Anti-APC2 Antibody [3A2G2]

EM1710-75

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, IF-Cell, FC
Molecular Wt:	244kDa
Clone number:	3A2G2

Description: This gene encodes a strongly conserved protein that has an N-terminal coiled-coil domain followed by an armadillo domain, five 20-amino acid repeats, and two SAMP domains. This protein promotes the assembly of a multiprotein complex that recruits and phosphorylates the Wnt effector beta-catenin and targets beta-catenin for ubiquitylation and proteasomal degradation. This protein therefore plays a role in the reduction of cytoplasmic levels of beta-catenin which in turn reduces activation of Wnt target genes that play a pivotal role in the pathogenesis of various human cancers. The protein encoded by this gene is closely related to the adenomatous polyposis coli (APC) tumor-suppressor protein and has similar tumor-suppressor effects. This gene also plays a role in actin assembly, cell-cell adhesion, and microtubule network formation through its interaction with cytoskeletal proteins. This gene has its highest expression in the central nervous system and is involved in brain development through cytoskeletal regulation in neurons. Alternative splicing produces multiple transcript variants encoding distinct isoforms.

Immunogen: Purified recombinant fragment of human APC2 (AA: 2041-2181) expressed in E. Coli.

Positive control: Hela cells, ovarian cancer tissues, bladder cancer tissues

Subcellular location: Cytoplasm, cytoskeleton. Golgi apparatus. Cytoplasm. Cytoplasm, perinuclear region.

Database links: SwissProt: O95996 Human

Recommended Dilutions:

IHC-P	1:50-1:200
IF-cell	1:50-1:200
FC	1:100-1:200

Storage Buffer: Purified antibody in PBS with 0.05% sodium azide.

Storage Instruction: 4℃; -20℃ for long term storage.

Purity: Protein G affinity purified.

Images

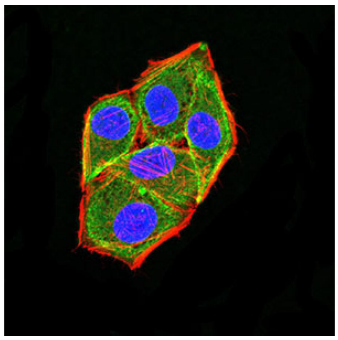

Fig1: Immunocytochemistry staining of APC2 in Hela cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (EM1710-75, 1/100) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Mouse IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue), Actin filaments have been labeled with Alexa Fluor- 555 phalloidin (red).

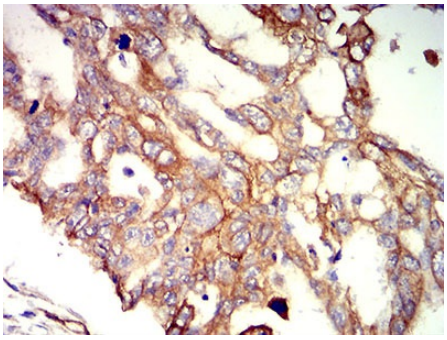

Fig2: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using anti-APC2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (EM1710-75, 1/100) for 30 minutes 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.

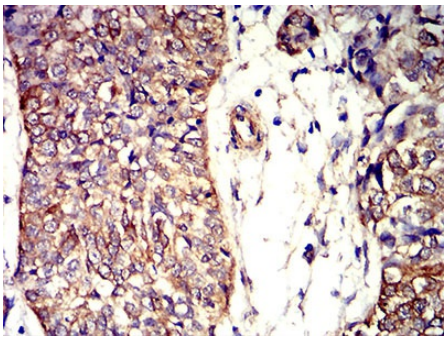

Fig3: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using anti-APC2 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (EM1710-75, 1/100) for 30 minutes 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.

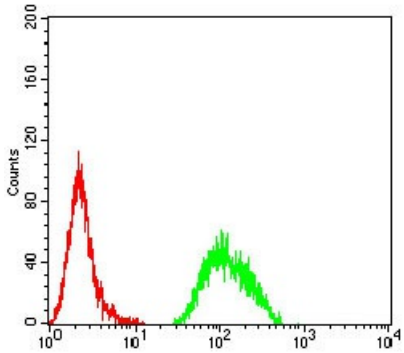

Fig4: Flow cytometric analysis of APC2 was done on Hela cells. The cells were fixed, permeabilized and stained with the primary antibody (EM1710-75, 1/100) (green). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated goat anti-Mouse IgG Secondary antibody at 1/500 dilution for 30 minutes. Unlabelled sample was used as a control (cells without incubation with primary antibody; red).

Background References

1. Cell Rep. 2015 Mar 3. pii: S2211-1247(15)00139-4.
2. Cancer Res. 2000 Jan 1;60(1):101-5.