10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-APC Antibody

Catalog # AP50981

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P25054
Reactivity	Human, Rat, Pig, Chicken, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	311646

Additional Information

Gene ID	324
Other Names	DP2.5; Adenomatous polyposis coli protein; Protein APC; Deleted in polyposis 2.5
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human APC. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

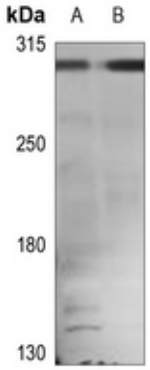
Name	APC (HGNC:583)
Synonyms	DP2.5
Function	Tumor suppressor. Promotes rapid degradation of CTNNB1 and participates in Wnt signaling as a negative regulator. APC activity is correlated with its phosphorylation state. Activates the GEF activity of SPATA13 and ARHGEF4. Plays a role in hepatocyte growth factor (HGF)- induced cell migration. Required for MMP9 up-regulation via the JNK signaling pathway in colorectal tumor cells. Associates with both microtubules and actin filaments, components of the cytoskeleton (PubMed:17293347). Plays a role in mediating the organization of F- actin into ordered bundles (PubMed:17293347). Functions downstream of Rho GTPases and DIAPH1 to selectively stabilize microtubules (By similarity). Acts as a mediator of ERBB2-dependent stabilization of microtubules at the cell cortex. It is required for the localization of MACF1 to the cell membrane and this localization of MACF1 is critical for its function in microtubule stabilization.

Cellular Location	Cell junction, adherens junction. Cytoplasm, cytoskeleton. Cell projection, lamellipodium. Cell projection, ruffle membrane. Cytoplasm. Cell membrane. Note=Associated with the microtubule network at the growing distal tip of microtubules (PubMed:19632184) MAPRE1 may be required for targeting to the growing microtubule plus ends (PubMed:19632184). Accumulates in the lamellipodium and ruffle membrane in response to hepatocyte growth factor (HGF) treatment (PubMed:19151759). The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosphorylated form to the cell membrane (PubMed:20937854).
Tissue Location	Expressed in a variety of tissues: brain, small intestine, colon, thymus, skeletal muscle, heart, prostate, lung, spleen, ovary, testis kidney, placenta, blood and liver (PubMed:21643010, PubMed:27217144). Isoform 1A: Very strongly expressed in brain but has relatively low expression levels in other tissues (PubMed:19527921, PubMed:21643010, PubMed:27217144). Isoform 1B: Predominant form in all tissues except for brain, including gastric mucosa and blood (PubMed:19527921, PubMed:21643010, PubMed:27217144)

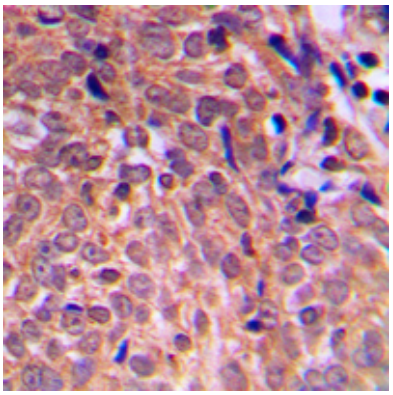
References

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Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Miki Y.,et al.Cancer Res. 52:643-645(1992).

Images

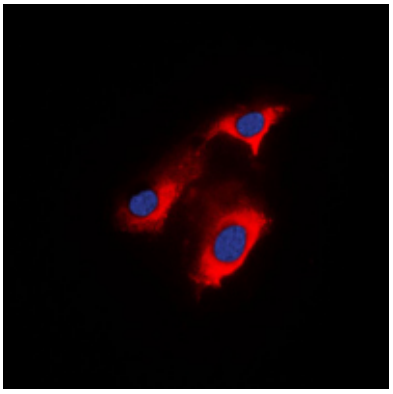


Western blot analysis of APC expression in U87MG (A), HCT116 (B) whole cell lysates. (Predicted band size: 311 kD; Observed band size: 310 kD)



Immunohistochemical analysis of APC staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of APC staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton



X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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