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# Anti-APC (Phospho-S2054) Antibody

Catalog # AP51637

## Product Information

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| **Application** | WB, IHC |
| **Primary Accession** | P25054 |
| **Reactivity** | Human, Mouse, Rat, Pig, Mk |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 311646 |

## Additional Information

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| **Gene ID** | 324 |
| **Other Names** | DP2.5; Adenomatous polyposis coli protein; Protein APC; Deleted in polyposis 2.5 |
| **Target/Specificity** | KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S2054 of human APC protein. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 |
| **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

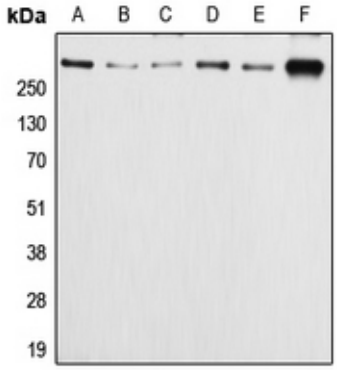
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| **Name** | APC ( HGNC:583) |
| **Synonyms** | DP2.5 |
| **Function** | Tumor suppressor. Promotes rapid degradation of CTNNB1 and participates in Wnt signaling as a negative regulator. APC activity is correlated with its phosphorylation state. Activates 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. |

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| **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) |

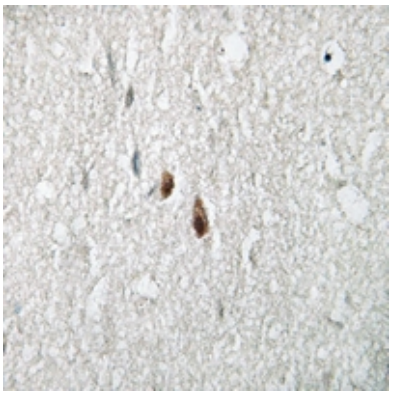
## References


Joslyn G.,et al.Cell 66:601-613(1991).
Kinzler K.W.,et al.Science 253:661-665(1991).
Kawasaki Y.,et al.Science 289:1194-1197(2000).
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 (Phospho-S2054) expression in HeLa (A), Caco2 (B), SW480 (C), MCF7 (D), SP2/0 (E), PC12 (F) whole cell lysates. (Predicted band size: 311 kD; Observed band size: 310 kD)



Immunohistochemical analysis of APC (Phospho-S2054) staining in human brain 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.


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