Rabbit anti-Human APC Polyclonal Antibody | anti-APC antibody

Phospho-APC(Ser2054) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321246	**Rabbit**	**Human**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

APC; Polyclonal Antibody; Phospho-APC(Ser2054) Antibody; Adenomatous Polyposis Coli; Adenomatous polyposis coli protein; Apc; APC_HUMAN; CC1; Deleted in polyposis 2.5; DP2; DP2.5; DP3; FAP; FPC; GS; Protein APC; anti-APC antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-APC(Ser2054) antibody detects endogenous levels of APC only when phosphorylated at Sersine 2054
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	2843
Applicable Applications for anti-APC antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human APC around the phosphorylation site of Sersine 2054
Subcellular Location	Cell Junction > Adherens Junction. Cytoplasm > Cytoskeleton. Cell Projection > Lamellipodium. Cell Projection > Ruffle Membrane. Cytoplasm. Cell Membrane. Associated with the microtubule network at the growing distal tip of microtubules. Accumulates in the lamellipodium and ruffle membrane in response to hepatocyte growth factor (HGF) treatment. The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosophorylated form to the cell membrane.
Tissue Specificity	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).
Conjugation	Unconjugated
Epitope	Phospho Ser2054
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

WB (Western Blot)
Western blot analysis on HuvEc cell lysate using Phospho-APC(Ser2054) Antibody. The lane on the left is treated with the antigen-specific peptide.

IHC (Immunohiostchemistry)
AAA321246 at 1/100 staining human Rectum tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

IF (Immunofluorescence)
AAA321246 staining HuvEc by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-APC antibody	Description: This gene encodes a tumor suppressor protein that includes among its many intracellular functions one of nuclear export. Defects in this gene cause familial adenomatous polyposis (FAP), an autosomal dominant pre-malignant disease that usually progresses to malignancy. Disease-associated mutations tend to be clustered in a small region designated the mutation cluster region (MCR) and result in a truncated protein product. 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. 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. Subunit Structure: Forms homooligomers and heterooligomers with APC2. Interacts with DIAPH1 and DIAPH2 (By similarity). Interacts with PDZ domains of DLG1 and DLG3. Associates with catenins. Binds axin. Interacts with ARHGEF4 (via N-terminus). Interacts with MAPRE1 (via C-terminus); probably required for APC targeting to the growing microtubule plus ends. Interacts with MAPRE2 and MAPRE3 (via C-terminus). Found in a complex consisting of ARHGEF4, APC and CTNNB1. Interacts with SCRIB; may mediate APC targeting to adherens junctions of epithelial cells. Interacts with SPATA13 (via N-terminus and SH3 domain). Interacts with ASAP1 (via SH3 domain). Found in a complex composed of MACF1, APC, AXIN1, CTNNB1 and GSK3B (By similarity). Interacts at the cell membrane with AMER1 and AMER2 (via ARM repeats). Interacts with KHDRBS1. The complex composed, at least, of APC, CTNNB1 and GSK3B interacts with JPT1; the interaction requires the inactive form of GSK3B (phosphorylated at 'Ser-9') (PubMed:25169422). Post-translational Modifications: Phosphorylated by GSK3B. Ubiquitinated, leading to its degradation by the proteasome. Ubiquitination is facilitated by Axin. Deubiquitinated by ZRANB1/TRABID. Similarity: The microtubule tip localization signal (MtLS) motif; mediates interaction with MAPRE1 and targeting to the growing microtubule plus ends. Belongs to the adenomatous polyposis coli (APC) family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	53759122
NCBI GeneID	324
NCBI Accession #	NP_000029.2
NCBI GenBank Nucleotide #	NM_000038.5
UniProt Accession #	P25054; Q15162; Q15163; Q93042; B7Z2B6; D3DT03

Molecular Weight	Observed: 311 kDa Predicted: 312 kDa
NCBI Official Full Name	adenomatous polyposis coli protein isoform b
NCBI Official Synonym Full Names	APC, WNT signaling pathway regulator
NCBI Official Symbol	APC
NCBI Official Synonym Symbols	GS; DP2; DP3; BTPS2; DP2.5; PPP1R46
NCBI Protein Information	adenomatous polyposis coli protein
UniProt Protein Name	Adenomatous polyposis coli protein
UniProt Gene Name	**APC**
UniProt Synonym Gene Names	Protein APC

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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