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APC Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP19274c

Specification

APC Antibody (Center) Blocking Peptide - Product Information

Primary Accession P25054

APC Antibody (Center) Blocking Peptide - Additional Information

Gene ID 324

Other Names
Adenomatous polyposis coli protein, Protein APC, Deleted in polyposis 25, APC, DP25

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

APC Antibody (Center) Blocking Peptide - 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)

APC Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

APC Antibody (Center) Blocking Peptide - Images

APC Antibody (Center) Blocking Peptide - Background

This gene encodes a tumor suppressor protein that acts asan antagonist of the Wnt signaling pathway. It is also involved inother processes including cell migration and adhesion,transcriptional activation, and apoptosis. Defects in this genecause familial adenomatous polyposis (FAP), an autosomal dominantpre-malignant disease that usually progresses to malignancy.Disease-associated mutations tend to be clustered in a small regiondesignated the mutation cluster region (MCR) and result in atruncated protein product.

APC Antibody (Center) Blocking Peptide - References

Chung, K.H., et al. J Neurosurg Pediatr 6(4):372-376(2010)Rai, K., et al. Cell 142(6):930-942(2010)Poulogiannis, G., et al. Proc. Natl. Acad. Sci. U.S.A. 107(34):15145-15150(2010)Jaulin, F., et al. J. Cell Biol. 190(3):443-460(2010)Sugiyama, N., et al. Mol. Cell Proteomics 6(6):1103-1109(2007)