SANTA CRUZ BIOTECHNOLOGY, INC.

APC (C-20): sc-896



BACKGROUND

The adenomatous polyposis syndromes, familial adenomatous polyposis (FAP) and Gardner's syndrome (GS), are characterized by numerous adenomatous polyps throughout the entire colon. These polyps invariably progress to colon cancer in addition to other extracolonic manifestations. The cloning of the APC gene revealed a ubiquitously expressed protein, 2,843 amino acids in length, which is frequently mutated in patients suffering from FAP and GS. APC has been found to be associated with structural components of intracellular junctions. β -catenin and γ -catenin (also called plakoglobin), are involved in the regulation of cellular adhesion. APC and E-cadherin compete for binding to specific internal regions of both β - and γ -catenin complex are mediated by α -catenin.

CHROMOSOMAL LOCATION

Genetic locus: APC (human) mapping to 5q22.2; Apc (mouse) mapping to 18 B1.

SOURCE

APC (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of APC of human origin.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-896 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-896 AC, 500 μ g/0.25 ml agarose in 1 ml; as HRP conjugate for Western blotting, sc-896 HRP, 200 μ g/1 ml; and as fluorescein (sc-896 FITC) or rhodamine (sc-896 TRITC) conjugates for use in immunofluorescence, 200 μ g/1 ml.

APPLICATIONS

APC (C-20) is recommended for detection of APC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

APC (C-20) is also recommended for detection of APC in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for APC siRNA (h): sc-29702, APC siRNA (m): sc-29703, APC shRNA Plasmid (h): sc-29702-SH, APC shRNA Plasmid (m): sc-29703-SH, APC shRNA (h) Lentiviral Particles: sc-29702-V and APC shRNA (m) Lentiviral Particles: sc-29703-V.

Molecular Weight of APC: 110-310 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or Jurkat whole cell lysate: sc-2204.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



APC (C-20): sc-896. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic localization

SELECT PRODUCT CITATIONS

- Edelmann, W., et al. 1997. Mutation in the mismatch repair gene Msh6 causes cancer susceptibility. Cell 91: 467-477.
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- Iizuka-Kogo, A., et al. 2005. Colocalization of APC and DLG at the tips of cellular protrusions in cultured epithelial cells and its dependency on cytoskeletons. Histochem. Cell Biol. 123: 67-73.
- Kurzik-Dumke, U. and Czaja, J. 2007. Htid-1, the human homolog of the Drosophila melanogaster I(2)tid tumor suppressor, defines a novel physiological role of APC. Cell. Signal. 19: 1973-1985.
- Honda, T., et al. 2010. PDZRN3 negatively regulates BMP-2-induced osteoblast differentiation through inhibition of Wnt signaling. Mol. Biol. Cell 21: 3269-3277.
- 6. Asada, N., et al. 2010. LKB1-mediated spatial control of GSK3 β and adenomatous polyposis coli contributes to centrosomal forward movement and neuronal migration in the developing neocortex. J. Neurosci. 30: 8852-8865.
- Svedlund, J., et al. 2010. Aberrant WNT/β-catenin signaling in parathyroid carcinoma. Mol. Cancer 9: 294.
- Larabee, J.L., et al. 2011. Adenomatous polyposis coli protein associates with C/EBP β and increases *Bacillus anthracis* edema toxin-stimulated gene expression in macrophages. J. Biol. Chem. 286: 19364-19372.
- 9. Li, L., et al. 2013. Wnt signaling pathway is activated in right colon serrated polyps correlating to specific molecular form of β -catenin. Hum. Pathol. 44: 1079-1088.

RESEARCH USE

For research use only, not for use in diagnostic procedures.