

APC (H-290): sc-7930

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. Interactions between cytoskeleton and the APC, E-cadherin, β/γ catenin complex are mediated by α -catenin.

REFERENCES

1. Kinzler, K.W., et al. 1991. Identification of FAP locus genes from chromosome 5q21. *Science* 253: 661-665.
2. Nishisho, I., et al. 1991. Mutations of chromosome 5q21 genes in FAP and colorectal cancer patients. *Science* 253: 665-669.

CHROMOSOMAL LOCATION

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

SOURCE

APC (H-290) is a rabbit polyclonal antibody raised against amino acids 2-289 mapping at the N-terminus of APC of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

APC (H-290) 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

APC (H-290) 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.

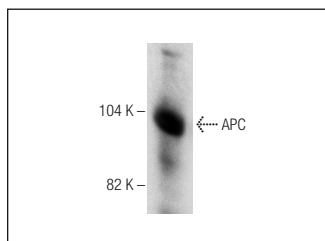
Molecular Weight of APC: 110-310 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, COLO 320DM cell lysate: sc-2226 or Jurkat whole cell lysate: sc-2204.

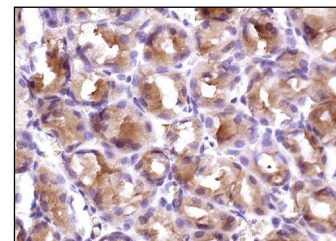
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



APC (H-290): sc-7930. Western blot analysis of APC expression in Jurkat whole cell lysate.



APC (H-290): sc-7930. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Hattrup, C.L., et al. 2004. MUC1 can interact with adenomatous polyposis coli in breast cancer. *Biochem. Biophys. Res. Commun.* 316: 364-369.
2. Catimel, B., et al. 2006. Purification and characterization of a high specificity polyclonal antibody to the adenomatous polyposis coli tumour suppressor protein. *Biomed. Chromatogr.* 20: 569-575.
3. Davies, M.L., et al. 2007. Analysis of a panel of antibodies to APC reveals consistent activity towards an unidentified protein. *Br. J. Cancer* 97: 384-390.
4. Kurzik-Dumke, U., et al. 2007. HTID-1, the human homolog of the *Drosophila melanogaster* l(2)TID tumor suppressor, defines a novel physiological role of APC. *Cell. Signal.* 19: 1973-1985.
5. Cronjé, L., et al. 2009. Colorectal cancer in South Africa: a heritable cause suspected in many young black patients. *S. Afr. Med. J.* 99: 103-106.
6. Layton, M.J., et al. 2012. Identification of a Wnt-induced protein complex by affinity proteomics using an antibody that recognizes a sub-population of β -catenin. *Biochim. Biophys. Acta* 1824: 925-937.

STORAGE

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

RESEARCH USE

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