

## APC (A-3): sc-393704



The Power to Question

## 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.  $\beta$ -catenin and  $\gamma$ -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  $\beta$ - and  $\gamma$ -catenin. Interactions between cytoskeleton and the APC, E-cadherin,  $\beta/\gamma$  catenin complex are mediated by  $\alpha$ -catenin.

## CHROMOSOMAL LOCATION

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

## SOURCE

APC (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-19 at the N-terminus of APC of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393704 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

APC (A-3) is recommended for detection of APC of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 (A-3) 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.

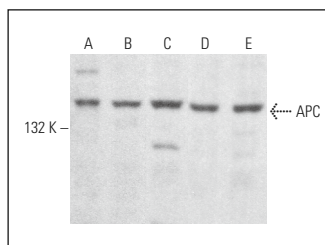
Molecular Weight of APC: 110-310 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, SP2/0 whole cell lysate: sc-364795 or HEK293 whole cell lysate: sc-45136.

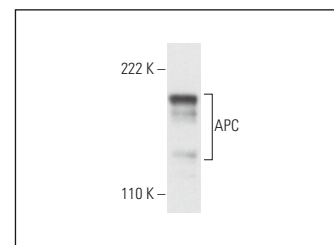
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



APC (A-3): sc-393704. Western blot analysis of APC expression in NIH/3T3 (A), SP2/0 (B), MCF7 (C), HEK293 (D) and NTERA-2 cl.D1 (E) whole cell lysates.



APC (A-3): sc-393704. Western blot analysis of APC expression in COLO 205 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Chesnokova, V., et al. 2016. Growth hormone is permissive for neoplastic colon growth. *Proc. Natl. Acad. Sci. USA* 113: E3250-E3259.
- Abdul, S.N., et al. 2017. Molecular characterization of somatic alterations in Dukes' B and C colorectal cancers by targeted sequencing. *Front. Pharmacol.* 8: 465.
- Wu, S., et al. 2020. A novel micropeptide encoded by Y-linked LINC00278 links cigarette smoking and AR signaling in male esophageal squamous cell carcinoma. *Cancer Res.* 80: 2790-2803.
- Yang, B., et al. 2020. MicroRNA-200a promotes esophageal squamous cell carcinoma cell proliferation, migration and invasion through extensive target genes. *Mol. Med. Rep.* 21: 2073-2084.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **APC (F-3): sc-9998** for APC antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.