

# APC2 (M-20): sc-9931

## 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. Cloning of the APC gene revealed an 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.

## 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.
3. Harach, H.R., et al. 1994. Familial adenomatous polyposis associated thyroid carcinoma: a distinct type of follicular cell neoplasm. *Histopathology* 25: 549-561.
4. Luk, G.D. 1995. Diagnosis and therapy of hereditary polyposis syndromes. *Gastroenterologist* 3: 153-167.
5. Olschwang, S., et al. 1995. High resolution genetic map of the adenomatous polyposis coli gene (APC). *Am. J. Med. Genet.* 56: 413-419.
6. Caspari, R., et al. 1995. Familial adenomatous polyposis: desmoid tumours and lack of ophthalmic lesions (CHRPE) associated with APC mutations beyond codon 1444. *Hum. Mol. Genet.* 4: 337-340.
7. Chop, A.M., et al. 1995. Immunodetection of the presence or absence of full-length APC gene product in human colonic tissues. *Anticancer Res.* 15: 991-997.

## CHROMOSOMAL LOCATION

Genetic locus: *Apc2* (mouse) mapping to 10 C1.

## SOURCE

APC2 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of APC2 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-9931 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

APC2 (M-20) is recommended for detection of APC2 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for APC2 siRNA (m): sc-37527, APC2 shRNA Plasmid (m): sc-37527-SH and APC2 shRNA (m) Lentiviral Particles: sc-37527-V.

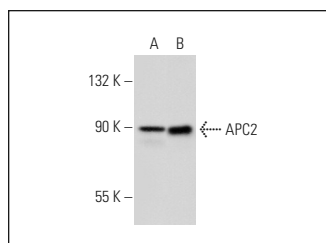
Molecular Weight of APC2: 105 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, mouse brain extract: sc-2253 or mouse cerebellum extract: sc-2403.

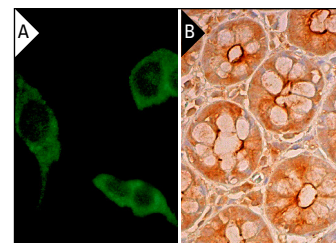
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



APC2 (M-20): sc-9931. Western blot analysis of APC2 expression in mouse brain (A) and mouse cerebellum (B) tissue extracts.



APC2 (M-20): sc-9931. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and membrane staining of glandular cells (B).

## STORAGE

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

## PROTOCOLS

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