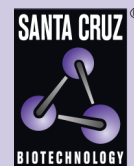


APC (F-3): sc-9998



The Power to Question

BACKGROUND

APC Antibody (F-3) is a high quality monoclonal APC antibody (also designated Adenomatous polyposis coli protein antibody) suitable for the detection of the APC protein of mouse, rat and human origin. APC Antibody (F-3) is available as both the non-conjugated anti-APC antibody form, as well as multiple conjugated forms of anti-APC antibody, including agarose, HRP, PE, FITC and multiple Alexa Fluor® conjugates. 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. Nishisho, I., et al. 1991. Mutations of chromosome 5q21 genes in FAP and colorectal cancer patients. *Science* 253: 665-669.
2. Olschwang, S., et al. 1995. High resolution genetic map of the adenomatous polyposis coli gene (APC) region. *Am. J. Med. Genet.* 56: 413-419.

CHROMOSOMAL LOCATION

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

SOURCE

APC (F-3) is a mouse monoclonal antibody raised against amino acids 2-289 of APC of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APC (F-3) is available conjugated to agarose (sc-9998 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-9998 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-9998 PE), fluorescein (sc-9998 FITC), Alexa Fluor® 488 (sc-9998 AF488), Alexa Fluor® 546 (sc-9998 AF546), Alexa Fluor® 594 (sc-9998 AF594) or Alexa Fluor® 647 (sc-9998 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-9998 AF680) or Alexa Fluor® 790 (sc-9998 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

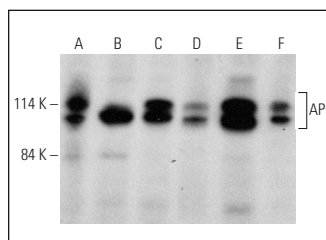
APC (F-3) is recommended for detection of APC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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 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.

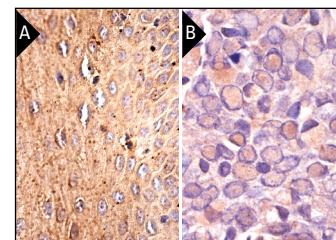
Molecular Weight of APC: 110-310 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or Hep G2 cell lysate: sc-2227.

DATA



APC (F-3) HRP: sc-9998 HRP. Direct western blot analysis of APC expression in Jurkat (A), NIH/3T3 (B), HeLa (C), Hep G2 (D), COLO 320DM (E) and MCF7 (F) whole cell lysates.



APC (F-3): sc-9998. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing nuclear localization (B).

SELECT PRODUCT CITATIONS

1. Kotsinas, A., et al. 2002. Proliferation, but not apoptosis, is associated with distinct β -catenin expression patterns in non-small-cell lung carcinomas: relationship with adenomatous polyposis coli and G₁ to S phase cell-cycle regulators. *Am. J. Pathol.* 161: 1619-1634.
2. Ayed-Guerfali, D.B., et al. 2014. Expression of APC, β -catenin and E-cadherin in Tunisian patients with gastric adenocarcinoma: clinical significance. *Tumour Biol.* 35: 1775-1783.
3. Abdelmaksoud-Damak, R., et al. 2015. Expression and mutation pattern of β -catenin and adenomatous polyposis coli in colorectal cancer patients. *Arch. Med. Res.* 46: 54-62.
4. Debouki-Joudi, S., et al. 2016. CpG methylation of APC promoter 1A in sporadic and familial breast cancer patients. *Cancer Biomark.* 18: 133-141.

RESEARCH USE

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