

APC (ALi 12-28): sc-53165

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.

CHROMOSOMAL LOCATION

Genetic locus: APC (human) mapping to 5q22.2.

SOURCE

APC (ALi 12-28) is a mouse monoclonal antibody raised against amino acids 1-433 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 (ALi 12-28) is available conjugated to agarose (sc-53165 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53165 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53165 PE), fluorescein (sc-53165 FITC), Alexa Fluor[®] 488 (sc-53165 AF488), Alexa Fluor[®] 546 (sc-53165 AF546), Alexa Fluor[®] 594 (sc-53165 AF594) or Alexa Fluor[®] 647 (sc-53165 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53165 AF680) or Alexa Fluor[®] 790 (sc-53165 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

APC (ALi 12-28) is recommended for detection of APC of 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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

Molecular Weight of APC: 110-310 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

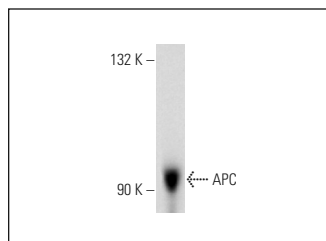
RESEARCH USE

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

STORAGE

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

DATA



APC (ALi 12-28): sc-53165. Western blot analysis of truncated APC expression COLO 320DM whole cell lysate.

SELECT PRODUCT CITATIONS

- Tran, H., et al. 2008. Trabid, a new positive regulator of Wnt-induced transcription with preference for binding and cleaving K63-linked ubiquitin chains. *Genes Dev.* 22: 528-542.
- Murawala, P., et al. 2009. Nup358 interacts with APC and plays a role in cell polarization. *J. Cell Sci.* 122: 3113-3122.
- Tran, H. and Polakis, P. 2012. Reversible modification of adenomatous polyposis coli (APC) with K63-linked polyubiquitin regulates the assembly and activity of the β -catenin destruction complex. *J. Biol. Chem.* 287: 28552-28563.
- Hernández-Maqueda, J.G., et al. 2013. Protein kinase C δ negatively modulates canonical Wnt pathway and cell proliferation in colon tumor cell lines. *PLoS ONE* 8: e58540.
- Veland, I.R., et al. 2013. Inversin/Nephrocystin-2 is required for fibroblast polarity and directional cell migration. *PLoS ONE* 8: e60193.
- Tran, H., et al. 2013. HectD1 E3 ligase modifies adenomatous polyposis coli (APC) with polyubiquitin to promote the APC-axin interaction. *J. Biol. Chem.* 288: 3753-3767.
- Wang, L., et al. 2014. Regulation of the phosphorylation and nuclear import and export of β -catenin by APC and its cancer-related truncated form. *J. Cell Sci.* 127: 1647-1659.
- Liu, K., et al. 2017. Forkhead box protein J1 (FOXJ1) is overexpressed in colorectal cancer and promotes nuclear translocation of β -catenin in SW620 cells. *Med. Sci. Monit.* 23: 856-866.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.