

APC7 (A-6): sc-365649



The Power to Question

BACKGROUND

The anaphase-promoting complex (APC) is composed of more than ten subunits, including APC1, APC2, APC4, APC5, APC7, APC8, APC10, and APC11. The APC acts in a cell-cycle dependent manner to promote the separation of sister chromatids during the transition between metaphase and anaphase in mitosis. APC, or cyclosome, accomplishes this progression through the ubiquitination of mitotic cyclins and other regulatory proteins that are targeted for destruction during cell division. APC is phosphorylated, and thus activated, by protein kinases Cdk1/cyclin B and polo-like kinase (Plk). APC is under tight control by a number of regulatory factors, including CDC20, CDH1 and MAD2. Specifically, CDC20 and CDH1 directly bind to and activate the cyclin-ubiquitination activity of APCs. In contrast, MAD2 inhibits APC by forming a ternary complex with CDC20 and APC, thus preventing APC activation. APC7, also known as ANAPC7, is a subunit of APC that mediates the interaction of APC with the transcription coactivators CBP and p300.

CHROMOSOMAL LOCATION

Genetic locus: ANAPC7 (human) mapping to 12q24.11; Anapc7 (mouse) mapping to 5 F.

SOURCE

APC7 (A-6) is a mouse monoclonal antibody raised against amino acids 266-565 mapping at the C-terminus of APC7 of human origin.

PRODUCT

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

APC7 (A-6) is available conjugated to agarose (sc-365649 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365649 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365649 PE), fluorescein (sc-365649 FITC), Alexa Fluor® 488 (sc-365649 AF488), Alexa Fluor® 546 (sc-365649 AF546), Alexa Fluor® 594 (sc-365649 AF594) or Alexa Fluor® 647 (sc-365649 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365649 AF680) or Alexa Fluor® 790 (sc-365649 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

APC7 (A-6) is recommended for detection of APC7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

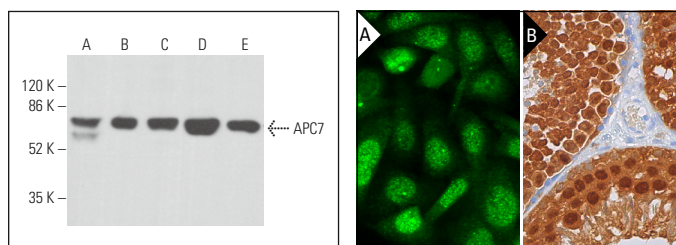
Suitable for use as control antibody for APC7 siRNA (h): sc-29706, APC7 siRNA (m): sc-29707, APC7 shRNA Plasmid (h): sc-29706-SH, APC7 shRNA Plasmid (m): sc-29707-SH, APC7 shRNA (h) Lentiviral Particles: sc-29706-V and APC7 shRNA (m) Lentiviral Particles: sc-29707-V.

Molecular Weight of APC7: 66 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



APC7 (A-6): sc-365649. Western blot analysis of APC7 expression in HeLa (A), MCF7 (B), ZR-75-1 (C), MOLT-4 (D) and A549 (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

APC7 (A-6): sc-365649. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization (A). APC7 (A-6) HRP: sc-365649 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded rat testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214 (B).

SELECT PRODUCT CITATIONS

- Chazarin, B., et al. 2019. Limited oxidative stress favors resistance to skeletal muscle atrophy in hibernating brown bears (*Ursus Arctos*). *Antioxidants* 8: 334.
- Han, T., et al. 2021. *Bifidobacterium infantis* maintains genome stability in ulcerative colitis via regulating anaphase-promoting complex subunit 7. *Front. Microbiol.* 12: 761113.
- Zhang, Y., et al. 2024. Functional analysis of Cdc20 reveals a critical role of CRY box in mitotic checkpoint signaling. *Commun. Biol.* 7: 164.

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.

PROTOCOLS

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