

APC5 (E-3): sc-25294

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. APC5, also known as ANAPC5 or PDL-108, is a subunit of APC that mediates the interaction of APC with the transcription coactivators CBP and p300.

REFERENCES

- Jorgensen, P.M., et al. 1998. A subunit of the anaphase-promoting complex is a centromere-associated protein in mammalian cells. *Mol. Cell Biol.* 18: 468-476.
- Page, A.M., et al. 1999. The anaphase-promoting complex: new subunits and regulators. *Annu. Rev. Biochem.* 68: 583-609.
- Peters, J.M. 1999. Subunits and substrates of the anaphase-promoting complex. *Exp. Cell Res.* 248: 339-349.
- Fang, G., et al. 1999. Control of mitotic transitions by the anaphase-promoting complex. *Phil. Trans. R. Soc. Lond. Biol. Sci.* 354: 1583-1590.
- Jorgensen, P.M., et al. 2001. Characterisation of the human APC1, the largest subunit of the anaphase-promoting complex. *Gene* 262: 51-59.

CHROMOSOMAL LOCATION

Genetic locus: ANAPC5 (human) mapping to 12q24.31; Anapc5 (mouse) mapping to 5 F.

SOURCE

APC5 (E-3) is a mouse monoclonal antibody raised against amino acids 1-300.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APC5 (E-3) is available conjugated to agarose (sc-25294 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25294 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25294 PE), fluorescein (sc-25294 FITC), Alexa Fluor® 488 (sc-25294 AF488), Alexa Fluor® 546 (sc-25294 AF546), Alexa Fluor® 594 (sc-25294 AF594) or Alexa Fluor® 647 (sc-25294 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25294 AF680) or Alexa Fluor® 790 (sc-25294 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

APPLICATIONS

APC5 (E-3) is recommended for detection of APC5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for APC5 siRNA (h): sc-37528, APC5 siRNA (m): sc-37529, APC5 shRNA Plasmid (h): sc-37528-SH, APC5 shRNA Plasmid (m): sc-37529-SH, APC5 shRNA (h) Lentiviral Particles: sc-37528-V and APC5 shRNA (m) Lentiviral Particles: sc-37529-V.

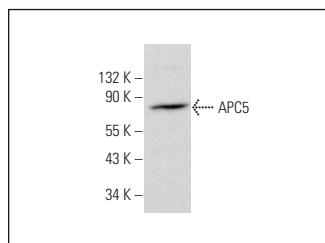
Molecular Weight of APC5: 85 kDa.

Positive Controls: T98G cell lysate: sc-2294, NIH/3T3 whole cell lysate: sc-2210 or BC₃H1 cell lysate: sc-2299.

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.

DATA



APC5 (E-3): sc-25294. Western blot analysis of APC5 expression in T98G whole cell lysate.

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.