

# APC11 (V-20): sc-21428

## BACKGROUND

Comprising more than ten subunits, the anaphase-promoting complex (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 APC and activate the cyclin-ubiquitination activity. In contrast, MAD2 inhibits APC by forming a ternary complex with CDC20 and APC; thus preventing APC activation. APC11 is a RING-H2 finger protein that allows for the synthesis of multiubiquitin chains in the presence of Ubiquitin carrier protein 4 (Ubc4) and ubiquitin conjugating enzyme (E2). In addition, a heterodimeric complex of either Ubc4 or UbcH10 with APC11 and APC2 catalyzes the ubiquitination of human securin and cyclin B1.

## REFERENCES

1. 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.
2. Page, A.M., et al. 1999. The anaphase-promoting complex: new subunits and regulators. *Annu. Rev. Biochem.* 68: 583-609.
3. Peters, J.M. 1999. Subunits and substrates of the anaphase-promoting complex. *Exp. Cell Res.* 248: 339-349.
4. Fang, G., et al. 1999. Control of mitotic transitions by the anaphase-promoting complex. *Philos. Trans. R. Soc. Lond. B. Biol. Sci.* 354: 1583-1589.
5. Gmachl, M., et al. 2000. The RING-H2 finger protein APC11 and the E2 enzyme UBC4 are sufficient to ubiquitinate substrates of the anaphase-promoting complex. *Proc. Natl. Acad. Sci. USA* 97: 8973-8978.

## CHROMOSOMAL LOCATION

Genetic locus: ANAPC11 (human) mapping to 17q25.3; Anapc11 (mouse) mapping to 11 E2.

## SOURCE

APC11 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of APC11 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-21428 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

APC11 (V-20) is recommended for detection of APC11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

APC11 (V-20) is also recommended for detection of APC11 in additional species, including equine, canine, bovine and porcine.

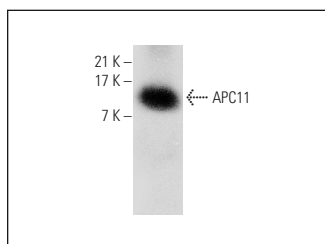
Suitable for use as control antibody for APC11 siRNA (h): sc-37534, APC11 siRNA (m): sc-37535, APC11 shRNA Plasmid (h): sc-37534-SH, APC11 shRNA Plasmid (m): sc-37535-SH, APC11 shRNA (h) Lentiviral Particles: sc-37534-V and APC11 shRNA (m) Lentiviral Particles: sc-37535-V.

Positive Controls: mouse heart extract: sc-2254.

## 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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™ Mounting Medium: sc-24941.

## DATA



APC11 (V-20): sc-21428. Western blot analysis of APC11 expression in mouse heart tissue extract.

## RESEARCH USE

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

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Try **APC11 (1B4-1A4): sc-517142**, our highly recommended monoclonal alternative to APC11 (V-20).