SANTA CRUZ BIOTECHNOLOGY, INC.

# ANAPC2 (8G2): sc-517022

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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 Cdc2/cyclin B and polo-like kinase (Plk). APC is under tight control by a number of regulatory factors, including p55 CDC, E-cadherin and MAD2. Specifically, p55 CDC and E-cadherin directly bind to APC and activate the cyclin-ubiquitination activity of APC. In contrast, MAD2 inhibits APC by forming a ternary complex with p55 CDC and APC and thus preventing APC activation. A heterodimeric complex of either Ubc4 or UbcH10 with ANAPC2 (also known as APC2) and APC11 catalyzes the ubiquitination of human securin and cyclin B1. ANAPC2 contains a C-terminal cullin homology domain that binds both APC11 and UBE2C.

## 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: 1583-1590.
5. Tang, Z., et al. 2001. APC2 cullin protein and APC11 RING protein comprise the minimal ubiquitin ligase module of the anaphase-promoting complex. Mol. Biol. Cell 12: 3839-3851.
6. Bolte, M., et al. 2002. Inhibition of APC-mediated proteolysis by the meiosis-specific protein kinase Ime2. Proc. Natl. Acad Sci. USA 99: 4385-4390.
7. Golan, A., et al. 2002. The cyclin-ubiquitin ligase activity of cyclosome/APC is jointly activated by protein kinases Cdk1-cyclin B and Plk. J. Biol. Chem. 277: 583-609.


## CHROMOSOMAL LOCATION

Genetic locus: ANAPC2 (human) mapping to 9q34.3.

## SOURCE

ANAPC2 (8G2) is a mouse monoclonal antibody raised against amino acids 716-822 representing partial length ANAPC2 of human origin.

## PRODUCT

Each vial contains 100 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

ANAPC2 (8G2) is recommended for detection of ANAPC2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

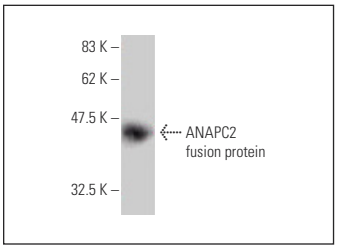
Suitable for use as control antibody for ANAPC2 siRNA (h): sc-77332, ANAPC2 shRNA Plasmid (h): sc-77332-SH and ANAPC2 shRNA (h) Lentiviral Particles: sc-77332-V.

Molecular Weight of ANAPC2: 105 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).

## DATA




ANAPC2 (8G2): sc-517022. Western blot analysis of human recombinant ANAPC2 fusion protein.

## SELECT PRODUCT CITATIONS


1. Zhang, X., et al. 2019. Regulation of OLC1 protein expression by the anaphase-promoting complex. Oncol. Lett. 17: 2639-2646.


## STORAGE

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

## PROTOCOLS

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