SANTA CRUZ BIOTECHNOLOGY, INC.

ANAPC2 (H-295): sc-20984

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.

CHROMOSOMAL LOCATION

Genetic locus: ANAPC2 (human) mapping to 9q34.3; Anapc2 (mouse) mapping to 2 A3.

SOURCE

ANAPC2 (H-295) is a rabbit polyclonal antibody raised against amino acids 6-300 mapping at the N-terminus of ANAPC2 of human origin.

PRODUCT

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

APPLICATIONS

ANAPC2 (H-295) is recommended for detection of ANAPC2 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), 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 ANAPC2 siRNA (h): sc-77332, ANAPC2 siRNA (m): sc-77333, ANAPC2 shRNA Plasmid (h): sc-77332-SH, ANAPC2 shRNA Plasmid (m): sc-77333-SH, ANAPC2 shRNA (h) Lentiviral Particles: sc-77332-V and ANAPC2 shRNA (m) Lentiviral Particles: sc-77333-V.

Molecular Weight of ANAPC2: 105 kDa.

Positive Controls: ANAPC2 (h): 293T Lysate: sc-115173, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

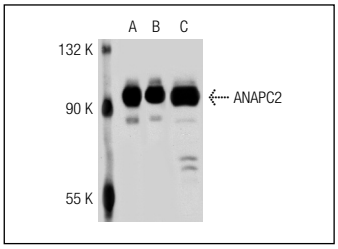
STORAGE

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

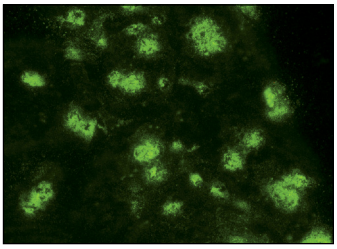
RESEARCH USE

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

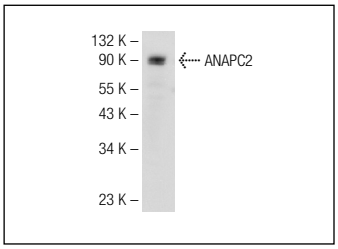
DATA



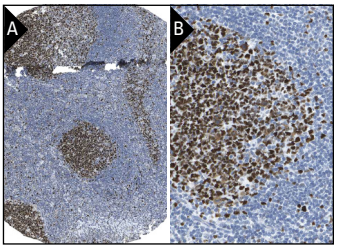
ANAPC2 (H-295): sc-20984. Western blot analysis of ANAPC2 expression in non-transfected 293T: sc-117752 (**A**), human ANAPC2 transfected 293T: sc-115173 (**B**) and HeLa (**C**) whole cell lysates.



ANAPC2 (H-295): sc-20984. Immunofluorescence staining of normal mouse kidney frozen section showing nuclear staining.



ANAPC2 (H-295): sc-20984. Western blot analysis of ANAPC2 expression in Hep G2 whole cell lysate.



ANAPC2 (H-295): sc-20984. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing nuclear and cytoplasmic staining of reaction center cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Qin, L., et al. 2009. Aurora-A interacts with Cyclin B1 and enhances its stability. Cancer Lett. 275: 77-85.
2. Yin, N., et al. 2012. IQGAP1 interacts with Aurora-A and enhances its stability and its role in cancer. Biochem. Biophys. Res. Commun. 421: 64-69.

PROTOCOLS

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