

RCC2 (G-5): sc-514340

BACKGROUND

RCC2 (regulator of chromosome condensation 2), also known as KIAA1470 or TD60, is a 522 amino acid protein that contains 7 RCC1 repeats and is expressed in a variety of mammalian tissues. Localized to the nucleus, as well as to centromeres and the midzone of the mitotic spindle in a cell-cycle dependent manner, RCC2 binds to Rac 1 and is required for the completion of mitosis and cytokinesis, possibly functioning as a guanine nucleotide exchange factor for Rac 1. RCC2 is subject to DNA damage-dependent phosphorylation, probably by ATM or ATR. The gene encoding RCC2 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Andreassen, P.R., et al. 1991. Telophase disc: a new mammalian mitotic organelle that bisects telophase cells with a possible function in cytokinesis. *J. Cell Sci.* 99: 523-534.
2. Martineau-Thuillier, S., et al. 1998. Co-localization of TD-60 and INCENP throughout G₂ and mitosis: evidence for their possible interaction in signalling cytokinesis. *Chromosoma* 107: 461-470.

CHROMOSOMAL LOCATION

Genetic locus: RCC2 (human) mapping to 1p36.13; Rcc2 (mouse) mapping to 4 D3.

SOURCE

RCC2 (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 110-134 within an internal region of RCC2 of human origin.

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.

RCC2 (G-5) is available conjugated to agarose (sc-514340 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514340 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514340 PE), fluorescein (sc-514340 FITC), Alexa Fluor® 488 (sc-514340 AF488), Alexa Fluor® 546 (sc-514340 AF546), Alexa Fluor® 594 (sc-514340 AF594) or Alexa Fluor® 647 (sc-514340 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514340 AF680) or Alexa Fluor® 790 (sc-514340 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514340 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

RCC2 (G-5) is recommended for detection of RCC2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RCC2 siRNA (h): sc-62932, RCC2 siRNA (m): sc-62933, RCC2 shRNA Plasmid (h): sc-62932-SH, RCC2 shRNA Plasmid (m): sc-62933-SH, RCC2 shRNA (h) Lentiviral Particles: sc-62932-V and RCC2 shRNA (m) Lentiviral Particles: sc-62933-V.

Molecular Weight of RCC2: 60 kDa.

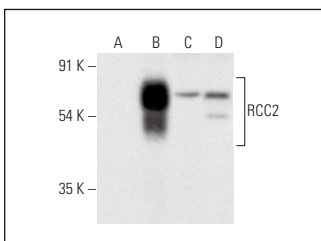
Positive Controls: RCC2 (h): 293T Lysate: sc-116533, MOLT-4 cell lysate: sc-2233 or Jurkat nuclear extract: sc-2132.

RECOMMENDED SUPPORT REAGENTS

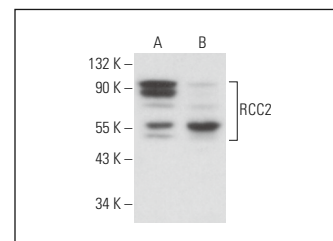
To ensure optimal results, the following support reagents are recommended:

- 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



RCC2 (G-5): sc-514340. Western blot analysis of RCC2 expression in non-transfected 293T: sc-117752 (A), human RCC2 transfected 293T: sc-116533 (B) and MOLT-4 (C) whole cell lysates and Jurkat nuclear extract (D).



RCC2 (G-5): sc-514340. Western blot analysis of RCC2 expression in HEL 92.1.7 (A) and SP2/0 (B) whole cell lysates.

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.