

Rap1 (yC-19): sc-6663

BACKGROUND

Rap1, also known as TERF2IP (telomeric repeat-binding factor 2-interacting protein 1) or DRIP5, is a 399 amino acid nuclear and cytoplasmic protein that contains one BRCT domain and one Myb-like domain. Belonging to the Rap1 family, Rap1 acts as both a regulator of telomere function and a regulator of transcription. While it does not bind DNA directly, Rap1 is recruited to telomeric double-stranded 5'-TTAGGG-3' repeats via its interaction with TRF2. Rap1 is required to negatively regulate telomere recombination and is essential for repressing homology-directed repair (HDR), which can affect telomere length. The gene that encodes Rap1 maps to human chromosome 16q23.1 and mouse chromosome 8 E1.

REFERENCES

- Li, B., et al. 2000. Identification of human Rap1: implications for telomere evolution. *Cell* 101: 471-483.
- Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 605061. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Hanaoka, S., et al. 2001. NMR structure of the hRap1 Myb motif reveals a canonical three-helix bundle lacking the positive surface charge typical of Myb DNA-binding domains. *J. Mol. Biol.* 312: 167-175.
- Tan, M., et al. 2003. The telomeric protein Rap1 is conserved in vertebrates and is expressed from a bidirectional promoter positioned between the Rap1 and KARS genes. *Gene* 323: 1-10.
- Ye, J.Z., et al. 2004. TIN2 binds TRF1 and TRF2 simultaneously and stabilizes the TRF2 complex on telomeres. *J. Biol. Chem.* 279: 47264-47271.

SOURCE

Rap1 (yC-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Rap1 of *Saccharomyces cerevisiae* 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-6663 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

Rap1 (yC-19) is recommended for detection of Rap1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

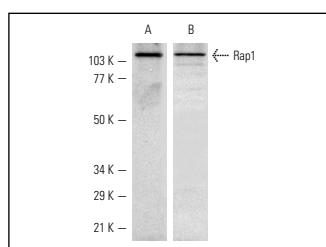
Molecular Weight (predicted) of Rap1: 92 kDa.

Molecular Weight (observed) of Rap1: 118 kDa.

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.

DATA



Western blot analysis of Rap1 expression in *S. cerevisiae* cell extracts (A,B). Antibodies tested include Rap1 (yN-18): sc-6662 (A) and Rap1 (yC-19): sc-6663 (B).

SELECT PRODUCT CITATIONS

- Reid, J.L., et al. 2000. Coordinate regulation of yeast ribosomal protein genes is associated with targeted recruitment of Esa1 histone acetylase. *Mol. Cell* 6: 1297-1307.
- Deckert, J., et al. 2002. Targeted recruitment of Rpd3 histone deacetylase represses transcription by inhibiting recruitment of SWI/SNF, SAGA, and TATA binding protein. *Mol. Cell. Biol.* 22: 6458-6470.
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- Mizuno, T., et al. 2004. Role of the N-terminal region of Rap1p in the transcriptional activation of glycolytic genes in *Saccharomyces cerevisiae*. *Yeast* 21: 851-866.
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- Knutson, B.A. and Hahn, S. 2011. Domains of Tra1 important for activator recruitment and transcription coactivator functions of SAGA and NuA4 complexes. *Mol. Cell. Biol.* 31: 818-831.

RESEARCH USE

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


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Try **Rap1 (G-7): sc-374297** or **Rap1 (E-11): sc-373790**, our highly recommended monoclonal alternatives to Rap1 (yC-19).