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RAP1 (m): 293T Lysate: sc-122972

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., Oestreich, S. and de Lange, T. 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., Nagadoi, A., Yoshimura, S., Aimoto, S., Li, B., de Lange, T. and Nishimura, Y. 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., Wei, C. and Price, C.M. 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., Donigian, J.R., van Overbeek, M., Loayza, D., Luo, Y., Krutchinsky, A.N., Chait, B.T. and de Lange, T. 2004. TIN2 binds TRF1 and TRF2 simultaneously and stabilizes the TRF2 complex on telomeres. *J. Biol. Chem.* 279: 47264-47271.
- Liu, D., O'Connor, M.S., Qin, J. and Songyang, Z. 2004. Telosome, a mammalian telomere-associated complex formed by multiple telomeric proteins. *J. Biol. Chem.* 279: 51338-51342.
- Sarthy, J., Bae, N.S., Scrafford, J. and Baumann, P. 2009. Human RAP1 inhibits non-homologous end joining at telomeres. *EMBO J.* 28: 3390-3399.
- Martinez, P., Thanasoula, M., Carlos, A.R., Gómez-López, G., Tejera, A.M., Schoeftner, S., Dominguez, O., Pisano, D.G., Tarsounas, M. and Blasco, M.A. 2010. Mammalian RAP1 controls telomere function and gene expression through binding to telomeric and extratelomeric sites. *Nat. Cell Biol.* 12: 768-780.
- Chen, Y., Rai, R., Zhou, Z.R., Kanoh, J., Ribeyre, C., Yang, Y., Zheng, H., Damay, P., Wang, F., Tsujii, H., Hiraoka, Y., Shore, D., Hu, H.Y., Chang, S. and Lei, M. 2011. A conserved motif within RAP1 has diversified roles in telomere protection and regulation in different organisms. *Nat. Struct. Mol. Biol.* 18: 213-221.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Terf2ip (mouse) mapping to 8 E1.

PRODUCT

RAP1 (m): 293T Lysate represents a lysate of mouse RAP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RAP1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive RAP1 antibodies. Recommended use: 10-20 µl per lane.

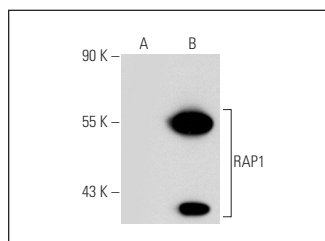
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RAP1 (5G7): sc-47695 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse RAP1 expression in RAP1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



RAP1 (5G7): sc-47695. Western blot analysis of RAP1 expression in non-transfected: sc-117752 (A) and mouse RAP1 transfected: sc-122972 (B) 293T whole cell lysates.

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.