



**SZABO  
SCANDIC**

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](http://linkedin.com/company/szaboscandic)



# RAP1 (m2): 293T Lysate: sc-122973

## 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

1. Li, B., Oestreich, S. and de Lange, T. 2000. Identification of human RAP1: implications for telomere evolution. *Cell* 101: 471-483.
2. 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/>
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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 (m2): 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 (m2): 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.