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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

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

RAD51AP2 siRNA (m): sc-143321

BACKGROUND

Many interacting proteins regulate and/or assist the activities of Rad51, a recombinase that plays a critical role in both DNA repair and meiotic recombination. RAD51AP2 (Rad51 associated protein 2) is a 1,159 amino acid protein that interacts strongly with Rad51. The Rad51-binding region of RAD51AP2 is 81% homologous to the C-terminus of RAD51AP1, an otherwise totally unrelated Rad51-binding partner that is ubiquitously expressed. Both RAD51AP1 and RAD51AP2 use the same structural C-terminal motif for Rad51 binding. The RAD51AP2 protein is found only in meiotic tissue (i.e. adult testis and fetal ovary), suggesting a meiotic-specific function for RAD51AP2. The RAD51AP2 gene is conserved in chimpanzee, canine, and mouse, and maps to human chromosome 2p24.2.

REFERENCES

1. Yuan, S.S., Lee, S.Y., Chen, G., Song, M., Tomlinson, G.E. and Lee, E.Y. 1999. BRCA2 is required for ionizing radiation-induced assembly of Rad51 complex *in vivo*. *Cancer Res.* 59: 3547-3551.
2. Kovalenko, O.V., Wiese, C. and Schild, D. 2006. RAD51AP2, a novel vertebrate- and meiotic-specific protein, shares a conserved RAD51-interacting C-terminal domain with RAD51AP1/PIR51. *Nucleic Acids Res.* 34: 5081-5092.
3. Wiese, C., Dray, E., Groesser, T., San Filippo, J., Shi, L., Collins, D.W., Tsai, M.S., Williams, G.J., Rydberg, B., Sung, P. and Schild, D. 2007. Promotion of homologous recombination and genomic stability by RAD51AP1 via RAD51 recombinase enhancement. *Mol. Cell* 28: 482-490.
4. Marcelis, C.L., Hol, F.A., Graham, G.E., Rieu, P.N., Kellermayer, R., Meijer, R.P., Lugtenberg, D., Scheffer, H., van Bokhoven, H., Brunner, H.G. and de Brouwer, A.P. 2008. Genotype-phenotype correlations in MYCN-related Feingold syndrome. *Hum. Mutat.* 29: 1125-1132.
5. Gospodinov, A., Tsaneva, I. and Anachkova, B. 2009. RAD51 foci formation in response to DNA damage is modulated by TIP49. *Int. J. Biochem. Cell Biol.* 41: 925-933.
6. Gildemeister, O.S., Sage, J.M. and Knight, K.L. 2009. Cellular redistribution of Rad51 in response to DNA damage: novel role for Rad51C. *J. Biol. Chem.* 284: 31945-31952.
7. Storlazzi, C.T., Lonoce, A., Guastadisegni, M.C., Trombetta, D., D'Addabbo, P., Daniele, G., L'Abbate, A., Macchia, G., Surace, C., Kok, K., Ullmann, R., Purgato, S., Palumbo, O., Carella, M., Ambros, P.F. and Rocchi, M. 2010. Gene amplification as double minutes or homogeneously staining regions in solid tumors: origin and structure. *Genome Res.* 20: 1198-1206.

CHROMOSOMAL LOCATION

Genetic locus: Rad51ap2 (mouse) mapping to 12 A1.1.

PROTOCOLS

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

PRODUCT

RAD51AP2 siRNA (m) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RAD51AP2 shRNA Plasmid (m): sc-143321-SH and RAD51AP2 shRNA (m) Lentiviral Particles: sc-143321-V as alternate gene silencing products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

RAD51AP2 siRNA (m) is recommended for the inhibition of RAD51AP2 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor RAD51AP2 gene expression knockdown using RT-PCR Primer: RAD51AP2 (m)-PR: sc-143321-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

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