



# SRRM4 siRNA (h): sc-95978

## BACKGROUND

Serine/arginine repetitive matrix (Srm) proteins are suggested to be part of the pre- and post-splicing multiprotein mRNP complexes. Srm proteins bind to RNA and are considered to be involved in pre-mRNA processing events. Srm proteins localize to the nuclear speckle and are phosphorylated upon DNA damage either by ATM or ATR. mKIAA1853, also known as nSR100 or Srm4 (serine/arginine repetitive matrix 4), is a 608 amino acid protein that exists as two isoforms as a result of alternative splicing events.

## REFERENCES

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2. Bourquin, J.P., Stagliar, I., Meier, P., Moosmann, P., Silke, J., Baechi, T., Georgiev, O. and Schaffner, W. 1997. A serine/arginine-rich nuclear matrix cyclophilin interacts with the C-terminal domain of RNA polymerase II. *Nucleic Acids Res.* 25: 2055-2061.
3. Blencowe, B.J., Issner, R., Nickerson, J.A. and Sharp, P.A. 1998. A coactivator of pre-mRNA splicing. *Genes Dev.* 12: 996-1009.
4. Patturajan, M., Wei, X., Berezney, R. and Corden, J.L. 1998. A nuclear matrix protein interacts with the phosphorylated C-terminal domain of RNA polymerase II. *Mol. Cell. Biol.* 18: 2406-2415.
5. Matsuo, S., Ballif, B.A., Smogorzewska, A., McDonald, E.R., Hurov, K.E., Luo, J., Bakalarski, C.E., Zhao, Z., Solimini, N., Lerenthal, Y., Shiloh, Y., Gygi, S.P. and Elledge, S.J. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. *Science* 316: 1160-1166.

## CHROMOSOMAL LOCATION

Genetic locus: SRRM4 (human) mapping to 12q24.23.

## PRODUCT

SRRM4 siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SRRM4 shRNA Plasmid (h): sc-95978-SH and SRRM4 shRNA (h) Lentiviral Particles: sc-95978-V as alternate gene silencing products.

For independent verification of SRRM4 (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-95978A, sc-95978B and sc-95978C.

## 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.

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

## APPLICATIONS

SRRM4 siRNA (h) is recommended for the inhibition of SRRM4 expression in human 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  $\mu$ M in 66  $\mu$ 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 SRRM4 gene expression knockdown using RT-PCR Primer: SRRM4 (h)-PR: sc-95978-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.