



RBM33 siRNA (m): sc-152743

BACKGROUND

Proteins containing RNA recognition motifs, including various hnRNP proteins, are implicated in the regulation of alternative splicing and protein components of snRNPs. The RBM (RNA-binding motif) gene family encodes proteins with an RNA binding motif that have been suggested to play a role in the modulation of apoptosis. RBM33 (RNA-binding motif protein 33) is a 1,170 amino acid protein that contains one RRM (RNA recognition motif) domain. Existing as two alternatively splice isoforms, the RBM33 gene is conserved in chimpanzee, cow, mouse, rat, chicken and zebrafish, and maps to human chromosome 7q36.3. Chromosome 7 is about 158 million bases long, encodes over 1000 genes and makes up about 5% of the human genome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

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2. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.
3. Scherer, S.W., et al. 2003. Human chromosome 7: DNA sequence and biology. *Science* 300: 767-772.
4. Sutherland, L.C., et al. 2005. RNA binding motif (RBM) proteins: a novel family of apoptosis modulators? *J. Cell. Biochem.* 94: 5-24.
5. Maris, C., Dominguez, C. and Allain, F.H. 2005. The RNA recognition motif, a plastic RNA-binding platform to regulate post-transcriptional gene expression. *FEBS J.* 272: 2118-2131.
6. Sutherland, L.C., et al. 2005. RNA binding motif (RBM) proteins: a novel family of apoptosis modulators? *J. Cell. Biochem.* 94: 5-24.
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CHROMOSOMAL LOCATION

Genetic locus: Rbm33 (mouse) mapping to 5 B1.

PRODUCT

RBM33 siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RBM33 shRNA Plasmid (m): sc-152743-SH and RBM33 shRNA (m) Lentiviral Particles: sc-152743-V as alternate gene silencing products.

For independent verification of RBM33 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-152743A, sc-152743B and sc-152743C.

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

RBM33 siRNA (m) is recommended for the inhibition of RBM33 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 RBM33 gene expression knockdown using RT-PCR Primer: RBM33 (m)-PR: sc-152743-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.

PROTOCOLS

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