SANTA CRUZ BIOTECHNOLOGY, INC.

RBM10 siRNA (h): sc-76362

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. RBM10 (RNA-binding protein 10), also known as GPATC9, MGC997, ZRANB5, GPATCH9 or RNA-binding protein S1-1, is a 930 amino acid nuclear protein that contains two RNA recognition motifs, a RanBP2-type zinc finger, a C_2H_2-type zinc finger and a G-patch domain. RBM10 binds to RNA homopolymers and may be involved in post-transcriptional processing, cancer proliferation and apoptosis. RBM10 may be significantly associated with the expression of the VEGF.

REFERENCES

1. Inoue, A., et al. 1996. Molecular cloning of a RNA binding protein, S1-1. Nucleic Acids Res. 24: 2990-2997.
2. Thiselton, D.L., et al. 2002. An integrated, functionally annotated gene map of the DXS8026-ELK1 interval on human Xp11.3-Xp11.23: potential hotspot for neurogenetic disorders. Genomics 79: 560-572.
3. Gläser, B., et al. 2004. Molecular cytogenetic analysis of a *de novo* balanced X;autosome translocation: evidence for predominant inactivation of the derivative X chromosome in a girl with multiple malformations. Am. J. Med. Genet. A 126A: 229-236.
4. Sutherland, L.C., et al. 2005. RNA binding motif (RBM) proteins: a novel family of apoptosis modulators? J. Cell. Biochem. 94: 5-24.

CHROMOSOMAL LOCATION

Genetic locus: RBM10 (human) mapping to Xp11.23.

PRODUCT

RBM10 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RBM10 shRNA Plasmid (h): sc-76362-SH and RBM10 shRNA (h) Lentiviral Particles: sc-76362-V as alternate gene silencing products.

For independent verification of RBM10 (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-76362A, sc-76362B and sc-76362C.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

RBM10 siRNA (h) is recommended for the inhibition of RBM10 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 µM in 66 µl. 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.

GENE EXPRESSION MONITORING

RBM10 (H-4): sc-515548 is recommended as a control antibody for monitoring of RBM10 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor RBM10 gene expression knockdown using RT-PCR Primer: RBM10 (h)-PR: sc-76362-PR (20 µl). 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.