SANTA CRUZ BIOTECHNOLOGY, INC.

RBM15B siRNA (h): sc-78000

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. RBM15B (RNA binding motif protein 15B), also known as OTT3 or HUMAGCGB, is an 890 amino acid protein which is expressed ubiquitously and localizes to the nucleoplasm of the nucleus. While known to give a granular staining pattern, RBM15B also indirectly colocalizes with Epstein-Barr virus BMLF1. RBM15B is a member of the SPEN (split-end) family of proteins which are known to be involved in repressor activities in multiple signaling pathways and likely have a role in binding RNA via interaction with spliceosome components. RBM15B contains three RRM (RNA recognition motif) domains and one SPOC domain and is encoded by a gene which maps to human chromosome 3.

REFERENCES

1. Inoue, A., et al. 1996. Molecular cloning of a RNA binding protein, S1-1. Nucleic Acids Res. 24: 2990-2997.
2. Maris, C., et al. 2005. The RNA recognition motif, a plastic RNA-binding platform to regulate post-transcriptional gene expression. FEBS J. 272: 2118-2131.
3. Hiriart, E., et al. 2005. Interaction of the Epstein-Barr virus mRNA export factor EB2 with human Spen proteins SHARP, OTT1, and a novel member of the family, OTT3, links Spen proteins with splicing regulation and mRNA export. J. Biol. Chem. 280: 36935-36945.
4. 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: RBM15B (human) mapping to 3p21.2.

PRODUCT

RBM15B 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 RBM15B shRNA Plasmid (h): sc-78000-SH and RBM15B shRNA (h) Lentiviral Particles: sc-78000-V as alternate gene silencing products.

For independent verification of RBM15B (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-78000A, sc-78000B and sc-78000C.

PROTOCOLS

See our web site at 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 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

RBM15B siRNA (h) is recommended for the inhibition of RBM15B 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.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor RBM15B gene expression knockdown using RT-PCR Primer: RBM15B (h)-PR: sc-78000-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.