SANTA CRUZ BIOTECHNOLOGY, INC.

# RBM15 siRNA (h): sc-76365

## BACKGROUND

RBM15 (RNA binding motif protein 15), also known as OTT, OTT1 or SPEN, is a 977 amino acid protein that localizes to the nucleus and contains one SPOC domain and three RRM domains. Expressed as multiple alternatively spliced isoforms, RBM15 interacts with Epstein-Barr (EBV) viral proteins and is thought to be involved in the regulation of Hox genes, possibly via interactions with RNA and spliceosome components. RBM15 is subject to post-translational phosphorylation, probably by ATM or ATR. Chromosomal aberrations involving the RBM15 gene, which localizes to human chromosome 1, may be associated with the development of acute megakaryoblastic leukemia.

## REFERENCES


1. Ma, Z., et al. 2001. Fusion of two novel genes, RBM15 and MKL1, in the t(1;22)(p13;q13) of acute megakaryoblastic leukemia. Nat. Genet. 28: 220-221.
2. Mercher, T., et al. 2001. Involvement of a human gene related to the *Drosophila* spen gene in the recurrent t(1;22) translocation of acute megakaryocytic leukemia. Proc. Natl. Acad. Sci. USA 98: 5776-5779.
3. Mercher, T., et al. 2002. Recurrence of OTT-MAL fusion in t(1;22) of infant AML-M7. Genes Chromosomes Cancer 33: 22-28.
4. Hsiao, H.H., et al. 2005. RBM15-MKL1 (OTT-MAL) fusion transcript in an adult acute myeloid leukemia patient. Am. J. Hematol. 79: 43-45.
5. 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.
6. Lindtner, S., et al. 2006. RNA-binding motif protein 15 binds to the RNA transport element RTE and provides a direct link to the NXF1 export pathway. J. Biol. Chem. 281: 36915-36928.
7. Sawada, T., et al. 2008. Fusion of OTT to BSAC results in aberrant up-regulation of transcriptional activity. J. Biol. Chem. 283: 26820-26828.


## CHROMOSOMAL LOCATION

Genetic locus: RBM15 (human) mapping to 1p13.3.

## PRODUCT

RBM15 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 RBM15 shRNA Plasmid (h): sc-76365-SH and RBM15 shRNA (h) Lentiviral Particles: sc-76365-V as alternate gene silencing products.

For independent verification of RBM15 (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-76365A, sc-76365B and sc-76365C.

## 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

RBM15 siRNA (h) is recommended for the inhibition of RBM15 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 RBM15 gene expression knockdown using RT-PCR Primer: RBM15 (h)-PR: sc-76365-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## SELECT PRODUCT CITATIONS


1. Martin, S.E., et al. 2021. The m6A landscape of polyadenylated nuclear (PAN) RNA and its related methylome in the context of KSHV replication. RNA 27: 1102-1125.


## RESEARCH USE

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