# RBPMS siRNA (h): sc-77460



The Power to Question

#### **BACKGROUND**

RBPMS (RNA binding protein with multiple splicing), also known as HERMES, is a 196 amino acid protein that contains one RRM (RNA recognition motif) domain and belongs to the RRM family of RNA-binding proteins. Expressed ubiquitously, RBPMS exists as multiple alternatively spliced isoforms and is thought to bind RNA, possibly playing a role in RNA-related events, such as transcription and translation. The gene encoding RBPMS maps to human chromosome 8p12, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

# **REFERENCES**

- Shimamoto, A., et al. 1996. A unique human gene that spans over 230 kb in the human chromosome 8p11-12 and codes multiple family proteins sharing RNA-binding motifs. Proc. Natl. Acad. Sci. USA 93: 10913-10917.
- Gerber, W.V., et al. 1999. The RNA-binding protein gene, hermes, is expressed at high levels in the developing heart. Mech. Dev. 80: 77-86.
- Sahasrabudhe, P.V., et al. 2001. Resonance assignments for the N-terminal domain from human RNA-binding protein with multiple splicing (RBPMS).
  J. Biomol. NMR 19: 285-286.
- 4. Hillman, R.T., et al. 2004. An unappreciated role for RNA surveillance. Genome Biol. 5: R8.

### CHROMOSOMAL LOCATION

Genetic locus: RBPMS (human) mapping to 8p12.

# **PRODUCT**

RBPMS siRNA (h) is a pool of 2 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  $\mu\text{M}$  solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see RBPMS shRNA Plasmid (h): sc-77460-SH and RBPMS shRNA (h) Lentiviral Particles: sc-77460-V as alternate gene silencing products.

For independent verification of RBPMS (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-77460A and sc-77460B.

## 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**

RBPMS siRNA (h) is recommended for the inhibition of RBPMS 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**

RBPMS (1C12): sc-293285 is recommended as a control antibody for monitoring of RBPMS 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-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-lgG $\kappa$  BP-FITC: sc-516140 or m-lgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor RBPMS gene expression knockdown using RT-PCR Primer: RBPMS (h)-PR: sc-77460-PR (20  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

## **SELECT PRODUCT CITATIONS**

 Rambout, X., et al. 2016. The transcription factor ERG recruits CCR4-NOT to control mRNA decay and mitotic progression. Nat. Struct. Mol. Biol. 23: 663-672.

## **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.

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