

RBMXL1 siRNA (m): sc-156082

BACKGROUND

RBMXRT (RNA binding motif protein, X chromosome retrogene), also known as hnRNP G (heterogeneous nuclear ribonucleoprotein G) or RBMX (RNA-binding motif protein, X chromosome), is a 388 amino acid nuclear RNA-binding protein involved in pre-mRNA splicing. A component of ribonucleosomes, RBMXRT contains one RRM (RNA recognition motif) domain and interacts with a multitude of other proteins as a member of the spliceosome C complex. RBMXRT undergoes post-translational O-glycosylation and has a number of phosphorylated serine and tyrosine residues. The gene encoding RBMXRT maps to murine chromosome 8 C1.

REFERENCES

- Colwill, K., Pawson, T., Andrews, B., Prasad, J., Manley, J.L., Bell, J.C. and Duncan, P.I. 1996. The Clk/Sty protein kinase phosphorylates SR splicing factors and regulates their intranuclear distribution. *EMBO J.* 15: 265-275.
- Delbridge, M.L., Ma, K., Subbarao, M.N., Cooke, H.J., Bhasin, S. and Graves, J.A. 1998. Evolution of mammalian HNRPG and its relationship with the putative azoospermia factor RBM. *Mamm. Genome* 9: 168-170.
- Mazeyrat, S., Saut, N., Mattei, M.G. and Mitchell, M.J. 1999. RBMY evolved on the Y chromosome from a ubiquitously transcribed X-Y identical gene. *Nat. Genet.* 22: 224-226.
- Watahiki, A., Waki, K., Hayatsu, N., Shiraki, T., Kondo, S., Nakamura, M., Sasaki, D., Arakawa, T., Kawai, J., Harbers, M., Hayashizaki, Y. and Carninci, P. 2004. Libraries enriched for alternatively spliced exons reveal splicing patterns in melanocytes and melanomas. *Nat. Methods* 1: 233-239.
- McKee, A.E., Minet, E., Stern, C., Riahi, S., Stiles, C.D. and Silver, P.A. 2005. A genome-wide *in situ* hybridization map of RNA-binding proteins reveals anatomically restricted expression in the developing mouse brain. *BMC Dev. Biol.* 5: 14.
- Sweet, S.M., Bailey, C.M., Cunningham, D.L., Heath, J.K. and Cooper, H.J. 2009. Large scale localization of protein phosphorylation by use of electron capture dissociation mass spectrometry. *Mol. Cell. Proteomics* 8: 904-912.
- van Dijk, T.B., Gillemans, N., Stein, C., Fanis, P., Demmers, J., van de Corput, M., Essers, J., Grosveld, F., Bauer, U.M. and Philipsen, S. 2010. Friend of Prmt1, a novel chromatin target of protein arginine methyltransferases. *Mol. Cell. Biol.* 30: 260-272.

CHROMOSOMAL LOCATION

Genetic locus: *Rbmxl1* (mouse) mapping to 8 C1.

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.

PRODUCT

RBMXL1 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 RBMXL1 shRNA Plasmid (m): sc-156082-SH and RBMXL1 shRNA (m) Lentiviral Particles: sc-156082-V as alternate gene silencing products.

For independent verification of RBMXL1 (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-156082A, sc-156082B and sc-156082C.

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

RBMXL1 siRNA (m) is recommended for the inhibition of RBMXL1 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 RBMXL1 gene expression knockdown using RT-PCR Primer: RBMXL1 (m)-PR: sc-156082-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.