SANTA CRUZ BIOTECHNOLOGY, INC.

HNRPLL siRNA (m): sc-146066

BACKGROUND

Heterogeneous nuclear ribonucleoprotein L-like (HNRPLL), also known as stromal RNA-regulating factor (SRRF), is a 542 amino acid nuclear protein. HNRPLL shares 69% amino acid homology with hnRNP L, a protein that binds to the 3' end of introns to modulate alternative splicing mechanisms of pre-mRNAs in normal cells. Due to this homology, HNRPLL is thought to bind RNA and participate in mRNA processing. HNRPLL contains three RNA-regulating motif (RRF) domains, which have RNA-binding regions. HNRPLL interacts with BAT1, an RNA-dependent ATPase that controls ATP hydrolysis during pre-mRNA splicing. HNRPLL is widely expressed in human tissues, including pancreas, lung, kidney, placenta, heart, skeletal muscle and bone marrow stromal cells. HNRPLL is expressed as four isoforms produced by alternative splicing.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603083. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Hui, J., et al. 2003. Novel functional role of CA repeats and hnRNP L in RNA stability. RNA 9: 931-936.
3. Shur, I., et al. 2004. Alternatively spliced isoforms of a novel stromal RNA regulating factor. Gene 334: 113-121.
4. Hui, J., et al. 2005. Intronic CA-repeat and CA-rich elements: a new class of regulators of mammalian alternative splicing. EMBO J. 24: 1988-1998.
5. Lim, J., et al. 2006. A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. Cell 125: 801-814.
6. Park, H.G., et al. 2007. Heterogeneous nuclear ribonucleoprotein D/AUF1 interacts with heterogeneous nuclear ribonucleoprotein L. J. Biosci. 32: 1263-1272.
7. Hung, L.H., et al. 2008. Diverse roles of hnRNP L in mammalian mRNA processing: a combined microarray and RNAi analysis. RNA 14: 284-296.

CHROMOSOMAL LOCATION

Genetic locus: Hnrpll (mouse) mapping to 17 E3.

PRODUCT

HNRPLL 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HNRPLL shRNA Plasmid (m): sc-146066-SH and HNRPLL shRNA (m) Lentiviral Particles: sc-146066-V as alternate gene silencing products.

For independent verification of HNRPLL (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-146066A, sc-146066B and sc-146066C.

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

HNRPLL siRNA (m) is recommended for the inhibition of HNRPLL 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 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

HNRPLL (A-4): sc-390699 is recommended as a control antibody for monitoring of HNRPLL 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 HNRPLL gene expression knockdown using RT-PCR Primer: HNRPLL (m)-PR: sc-146066-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.