SNRPC siRNA (h): sc-95371



The Power to Question

BACKGROUND

SNRPC (small nuclear ribonucleoprotein polypeptide C) is a 159 amino acid protein that localizes to the nucleus and contains one matrin-type zinc finger. Existing as a monomer, SNRPC associates with U1 SnRNP 70 and may play a role in ribonucleoprotein-related events. The gene encoding SNRPC maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

- Yamamoto, K., Miura, H., Moroi, Y., Yoshinoya, S., Goto, M., Nishioka, K. and Miyamoto, T. 1988. Isolation and characterization of a complementary DNA expressing human U1 small nuclear ribonucleoprotein C polypeptide. J. Immunol. 140: 311-317.
- Sillekens, P.T., Beijer, R.P., Habets, W.J. and van Venrooij, W.J. 1988.
 Human U1 snRNP-specific C protein: complete cDNA and protein sequence and identification of a multigene family in mammals. Nucleic Acids Res. 16: 8307-8321.
- 3. Nelissen, R.L., Gunnewiek, J.M., Lambermon, M.H. and Van Venrooij, W.J. 1997. Cloning and characterization of two processed pseudogenes and the cDNA for the murine U1 snRNP-specific protein C. Gene 184: 273-278.
- Knoop, L.L. and Baker, S.J. 2000. The splicing factor U1C represses EWS/FLI-mediated transactivation. J. Biol. Chem. 275: 24865-24871.
- 5. Du, H. and Rosbash, M. 2002. The U1 snRNP protein U1C recognizes the 5' splice site in the absence of base pairing. Nature 419: 86-90.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603522. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Muto, Y., Pomeranz Krummel, D., Oubridge, C., Hernandez, H., Robinson, C.V., Neuhaus, D. and Nagai, K. 2004. The structure and biochemical properties of the human spliceosomal protein U1C. J. Mol. Biol. 341: 185-198.
- 8. Hochleitner, E.O., Kastner, B., Fröhlich, T., Schmidt, A., Lührmann, R., Arnold, G. and Lottspeich, F. 2005. Protein stoichiometry of a multiprotein complex, the human spliceosomal U1 small nuclear ribonucleoprotein: absolute quantification using isotope-coded tags and mass spectrometry. J. Biol. Chem. 280: 2536-2542.

CHROMOSOMAL LOCATION

Genetic locus: SNRPC (human) mapping to 6p21.31.

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

SNRPC 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 μM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SNRPC shRNA Plasmid (h): sc-95371-SH and SNRPC shRNA (h) Lentiviral Particles: sc-95371-V as alternate gene silencing products.

For independent verification of SNRPC (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-95371A and sc-95371B.

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

SNRPC siRNA (h) is recommended for the inhibition of SNRPC 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

SNRPC (4H12): sc-101549 is recommended as a control antibody for monitoring of SNRPC 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).

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SNRPC gene expression knockdown using RT-PCR Primer: SNRPC (h)-PR: sc-95371-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com