# SNRPC shRNA (h) Lentiviral Particles: sc-95371-V



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#### **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/
- 7. 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.

## **RESEARCH USE**

The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product and all replicates and derivatives for research purposes conducted by the buyer in his laboratory only (whether the buyer is an academic or for-profit entity). The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party, or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

#### **CHROMOSOMAL LOCATION**

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

#### **PRODUCT**

SNRPC shRNA (h) Lentiviral Particles is a pool of concentrated, transduction-ready viral particles containing 2 target-specific constructs that encode 19-25 nt (plus hairpin) shRNA designed to knock down gene expression. Each vial contains 200 µl frozen stock containing 1.0 x 10<sup>6</sup> infectious units of virus (IFU) in Dulbecco's Modified Eagle's Medium with 25 mM HEPES pH 7.3. Suitable for 10-20 transductions. Also see SNRPC siRNA (h): sc-95371 and SNRPC shRNA Plasmid (h): sc-95371-SH as alternate gene silencing products.

#### **APPLICATIONS**

SNRPC shRNA (h) Lentiviral Particles is recommended for the inhibition of SNRPC expression in human cells.

#### **SUPPORT REAGENTS**

Control shRNA Lentiviral Particles: sc-108080. Available as 200  $\mu$ l frozen viral stock containing 1.0 x 10<sup>6</sup> infectious units of virus (IFU); contains an shRNA construct encoding a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA.

## **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  $\mu$ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

#### **BIOSAFETY**

Lentiviral particles can be employed in standard Biosafety Level 2 tissue culture facilities (and should be treated with the same level of caution as with any other potentially infectious reagent). Lentiviral particles are replication-incompetent and are designed to self-inactivate after transduction and integration of shRNA constructs into genomic DNA of target cells.

# **STORAGE**

Store lentiviral particles at -80° C. Stable for at least one year from the date of shipment. Once thawed, particles can be stored at 4° C for up to one week. Avoid repeated freeze thaw cycles.

# **PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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