# SS18L2 siRNA (h): sc-78400



The Power to Question

## **BACKGROUND**

The SS18 (synovial saracoma associated protein) family interacts with various proteins involved in gene regulation, possibly acting as transcriptional coactivators. Synovial sarcomas occur frequently in large joints in the extremities, and the majority of cases have a recurrent chromosomal translocation in which the 5' end of the SS18 gene is fused to the 3' end of SSX1, SSX2 or SSX4. SS18L2 (synovial sarcoma translocation gene on chromosome 18-like 2), also known as SYT homolog 2 or SS18-like protein 2, is a 77 amino acid protein belonging to the SS18 family. SS18L2, as well as SS18L1, are homologous to SS18. Like other members of the SS18 family, SS18L2 contains a single SNH domain, however it lacks the QPGY transactivation domain which is present in SS18L1. The gene encoding SS18L2 maps to human chromosome 3p22.1.

# **REFERENCES**

- de Bruijn, D.R., Kater-Baats, E., Eleveld, M., Merkx, G. and Geurts Van Kessel, A. 2001. Mapping and characterization of the mouse and human SS18 genes, two human SS18-like genes and a mouse Ss18 pseudogene. Cytogenet. Cell Genet. 92: 310-319.
- Storlazzi, C.T., Mertens, F., Mandahl, N., Gisselsson, D., Isaksson, M., Gustafson, P., Domanski, H.A. and Panagopoulos, I. 2003. A novel fusion gene, SS18L1/SSX1, in synovial sarcoma. Genes Chromosomes Cancer. 37: 195-200.
- Ishida, M., Tanaka, S., Ohki, M. and Ohta, T. 2004. Transcriptional co-activator activity of SYT is negatively regulated by BRM and Brg1. Genes Cells 9: 419-428.
- de Bruijn, D.R. and Geurts van Kessel, A. 2006. Common origin of the human synovial sarcoma associated SS18 and SS18L1 gene loci. Cytogenet. Genome Res. 112: 222-226.
- de Bruijn, D.R., Nap, J.P. and van Kessel, A.G. 2007. The (epi)genetics of human synovial sarcoma. Genes Chromosomes Cancer 46: 107-117.
- Gordon, L., Yang, S., Tran-Gyamfi, M., Baggott, D., Christensen, M., Hamilton, A., Crooijmans, R., Groenen, M., Lucas, S., Ovcharenko, I. and Stubbs, L. 2007. Comparative analysis of chicken chromosome 28 provides new clues to the evolutionary fragility of gene-rich vertebrate regions. Genome Res. 17: 1603-1613.
- Jasinska, A.J., Service, S., Choi, O.W., DeYoung, J., Grujic, O., Kong, S.Y., Jorgensen, M.J., Bailey, J., Breidenthal, S., Fairbanks, L.A., Woods, R.P., Jentsch, J.D. and Freimer, N.B. 2009. Identification of brain transcriptional variation reproduced in peripheral blood: an approach for mapping brain expression traits. Hum. Mol. Genet. 18: 4415-4427.

## CHROMOSOMAL LOCATION

Genetic locus: SS18L2 (human) mapping to 3p22.1.

# **PROTOCOLS**

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

#### **PRODUCT**

SS18L2 siRNA (h) 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  $\mu M$  solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see SS18L2 shRNA Plasmid (h): sc-78400-SH and SS18L2 shRNA (h) Lentiviral Particles: sc-78400-V as alternate gene silencing products.

For independent verification of SS18L2 (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-78400A, sc-78400B and sc-78400C.

## 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**

SS18L2 siRNA (h) is recommended for the inhibition of SS18L2 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.

## **RT-PCR REAGENTS**

Semi-quantitative RT-PCR may be performed to monitor SS18L2 gene expression knockdown using RT-PCR Primer: SS18L2 (h)-PR: sc-78400-PR (20  $\mu$ l). 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.

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