



IGSF4C siRNA (m): sc-146190

BACKGROUND

IGSF4C (immunoglobulin superfamily member 4C), also known as CADM4 (cell adhesion molecule 4), NECL4 or TSL2, is a 388 amino acid single-pass type I membrane protein that contains one Ig-like V-type domain and two Ig-like C2-type domains. Expressed in kidney, brain and prostate, IGSF4C exists as both a monomer and a homodimer and is thought to be involved in cell-cell adhesion, possibly playing a role in tumor suppression. Human IGSF4C shares 98% sequence identity with its mouse counterpart, suggesting a conserved role between species. The gene encoding IGSF4C maps to human chromosome 19q13.31, which is the genetic home for a number of immunoglobulin superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (FcRs).

REFERENCES

1. Fukuhara, H., Kuramochi, M., Nobukuni, T., Fukami, T., Saino, M., Maruyama, T., Nomura, S., Sekiya, T. and Murakami, Y. 2001. Isolation of the TSL1 and TSL2 genes, members of the tumor suppressor TSLC1 gene family encoding transmembrane proteins. *Oncogene* 20: 5401-5407.
2. Murakami, Y. 2002. Functional cloning of a tumor suppressor gene, TSLC1, in human non-small cell lung cancer. *Oncogene* 21: 6936-6948.
3. Mao, X., Seidnitz, E., Ghosh, K., Murakami, Y. and Ghosh, H.P. 2003. The cytoplasmic domain is critical to the tumor suppressor activity of TSLC1 in non-small cell lung cancer. *Cancer Res.* 63: 7979-7985.
4. Fukami, T., Satoh, H., Williams, Y.N., Masuda, M., Fukuhara, H., Maruyama, T., Yageta, M., Kuramochi, M., Takamoto, S. and Murakami, Y. 2003. Isolation of the mouse Tsl1 and Tsl2 genes, orthologues of the human TSLC1-like genes 1 and 2 (TSL1 and TSL2). *Gene* 323: 11-18.
5. Grimwood, J., Gordon, L.A., Olsen, A., Terry, A., Schmutz, J., Lamerdin, J., Hellsten, U., Goodstein, D., Couronne, O., Tran-Gyamfi, M., Aerts, A., Altherr, M., Ashworth, L., Bajorek, E., Black, S., Branscomb, E., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609744. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Williams, Y.N., Masuda, M., Sakurai-Yageta, M., Maruyama, T., Shibuya, M. and Murakami, Y. 2006. Cell adhesion and prostate tumor-suppressor activity of TSL2/IGSF4C, an immunoglobulin superfamily molecule homologous to TSLC1/IGSF4. *Oncogene* 25: 1446-1453.

CHROMOSOMAL LOCATION

Genetic locus: Cadm4 (mouse) mapping to 7 A3.

PROTOCOLS

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

PRODUCT

IGSF4C siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see IGSF4C shRNA Plasmid (m): sc-146190-SH and IGSF4C shRNA (m) Lentiviral Particles: sc-146190-V as alternate gene silencing products.

For independent verification of IGSF4C (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-146190A and sc-146190B.

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

IGSF4C siRNA (m) is recommended for the inhibition of IGSF4C 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 IGSF4C gene expression knockdown using RT-PCR Primer: IGSF4C (m)-PR: sc-146190-PR (20 μ 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.