SANTA CRUZ BIOTECHNOLOGY, INC.

IGSF3 siRNA (h): sc-78899

BACKGROUND

IGSF3 (immunoglobulin superfamily, member 3), also known as V8 or EWI-3, is a 1,214 amino acid protein. Widely expressed with predominant expression in kidney, placenta and lung, IGSF3 localizes to the membrane and contains an N-terminal signal peptide, eight immunoglobulin (Ig) domains and a transmembrane segment. IGSF3 exhibits strong sequence and structural similarity to CD101 (32% identity), a leukocyte surface protein with seven Ig domains that is believed to play a role in T cell activation. Despite the structural similarities between IGSF3 and CD101, IGSF3 is not expressed in peripheral blood lymphocytes and does not appear to participate in an immune function. Based on its subcellular localization and the presence of the eight Ig domains, IGSF3 is hypothesized to function as a surface receptor or as a cell adhesion molecule.

REFERENCES

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3. Clark, K.L., Zeng, Z., Langford, A.L., Bowen, S.M. and Todd, S.C. 2001. PGRL is a major CD81-associated protein on lymphocytes and distinguishes a new family of cell surface proteins. J. Immunol. 167: 5115-5121.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603491. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Babcock, M., Pavlicek, A., Spiteri, E., Kashork, C.D., Ioshikhes, I., Shaffer, L.G., Jurka, J. and Morrow, B.E. 2003. Shuffling of genes within low-copy repeats on 22q11 (LCR22) by Alu-mediated recombination events during evolution. Genome Res. 13: 2519-2532.

CHROMOSOMAL LOCATION

Genetic locus: IGSF3 (human) mapping to 1p13.1.

PRODUCT

IGSF3 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 IGSF3 shRNA Plasmid (h): sc-78899-SH and IGSF3 shRNA (h) Lentiviral Particles: sc-78899-V as alternate gene silencing products.

For independent verification of IGSF3 (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-78899A and sc-78899B.

PROTOCOLS

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

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

IGSF3 siRNA (h) is recommended for the inhibition of IGSF3 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 IGSF3 gene expression knockdown using RT-PCR Primer: IGSF3 (h)-PR: sc-78899-PR (20 µl, 485 bp). 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.