

Fcrls siRNA (m): sc-45687

BACKGROUND

The Fc receptor homolog (FcRH) family of proteins are related to the classical Fc receptors (FcR) and belong to the immunoglobulin receptor superfamily. The proteins in the FcRH family (namely FcRH1-FcRH6) are type I transmembrane glycoproteins that are involved in immune system regulation and have immunoreceptor-tyrosine inhibitory motifs in their cytoplasmic domains. FcRH proteins are expressed primarily, although not exclusively, by mature B lineage cells, and may also serve important regulatory roles in normal and neoplastic B cell development. Fcrls (Fc receptor-like S), also known as IgSR, Msr2, Fcrh2, IFGP2, MMAN- γ , FcRH2sc or moFcRH2sc, is a 509 amino acid mouse protein that is related to the human FcRH family. The mouse ortholog of human FcRH2, Fcrls is expressed in non-lymphoid tissues and may play a role in developmental regulation events throughout the cell.

REFERENCES

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3. Davis, R.S., et al. 2002. Fc receptor homologs: newest members of a remarkably diverse Fc receptor gene family. *Immunol. Rev.* 190: 123-136.
4. Ehrhardt, G.R., et al. 2003. The inhibitory potential of Fc receptor homolog 4 on memory B cells. *Proc. Natl. Acad. Sci. USA* 100: 13489-13494.
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6. Davis, R.S., et al. 2005. An extended family of Fc receptor relatives. *Eur. J. Immunol.* 35: 674-680.
7. Wilson, T.J., et al. 2007. Fcrl6, a new ITIM-bearing receptor on cytolytic cells, is broadly expressed by lymphocytes following HIV-1 infection. *Blood* 109: 3786-3793.
8. Taylor, A.I., et al. 2007. The first avian Ig-like Fc receptor family member combines features of mammalian FcR and Fcrl. *Immunogenetics* 59: 323-328.

CHROMOSOMAL LOCATION

Genetic locus: Fcrls (mouse) mapping to 3 F1.

PRODUCT

Fcrls siRNA (m) 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see Fcrls shRNA Plasmid (m): sc-45687-SH and Fcrls shRNA (m) Lentiviral Particles: sc-45687-V as alternate gene silencing products.

For independent verification of Fcrls (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-45687A, sc-45687B and sc-45687C.

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

Fcrls siRNA (m) is recommended for the inhibition of Fcrls 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 Fcrls gene expression knockdown using RT-PCR Primer: Fcrls (m)-PR: sc-45687-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.

PROTOCOLS

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