SANTA CRUZ BIOTECHNOLOGY, INC.

# FCRLM1 siRNA (h): sc-63284

## BACKGROUND

FCRLM1 is a member of the Fc receptor-like (FCRL) family of molecules that may play a fundamental role as an immunomodulatory agent in conventional and subverted B lineage cells. FCRL molecules are implicated in both malignancies and autoimmune disorders. Homologous to the well-known receptors in the Fc division of immunoglobulins (FCR), Fc receptor-like molecules helped contribute many new genes to the immunoglobulin superfamily (IgSF). These genes, located on the human chromosomal region 1q21-23, also display significant diversity between humans and mice. The Fc receptor-like molecules retain dual or autonomous signaling properties, as well as diverse extracellular frameworks and preferential B lineage expression. Strong evidence does not exist for a role as Ig-binding receptors.

## REFERENCES


1. 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.
2. Maltais, L.J., et al. 2006. New nomenclature for Fc receptor-like molecules. Nat. Immunol. 7: 431-432.
3. Newman, W.G., et al. 2006. Rheumatoid arthritis association with the FCRL3 -169C polymorphism is restricted to PTPN22 1858T-homozygous individuals in a Canadian population. Arthritis Rheum. 54: 3820-3827.
4. Owen, C.J., et al. 2007. Analysis of the Fc receptor-like-3 (FCRL3) locus in Caucasians with autoimmune disorders suggests a complex pattern of disease association. J. Clin. Endocrinol. Metab. 92:1106-1111.
5. Davis, R.S., 2007. Fc receptor-like molecules. Annu. Rev. Immunol. 25: 525-560.
6. Eyre, S., et al. 2007. Association of the FCRL3 gene with rheumatoid arthritis: a further example of population specificity? Arthritis Res. Ther. 8: R117.


## CHROMOSOMAL LOCATION

Genetic locus: FCRLA (human) mapping to 1q23.3.

## PRODUCT

FCRLM1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see FCRLM1 shRNA Plasmid (h): sc-63284-SH and FCRLM1 shRNA (h) Lentiviral Particles: sc-63284-V as alternate gene silencing products.

For independent verification of FCRLM1 (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-63284A, sc-63284B and sc-63284C.

## 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

FCRLM1 siRNA (h) is recommended for the inhibition of FCRLM1 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.

## GENE EXPRESSION MONITORING

FCRLM1 (N28.1): sc-53583 is recommended as a control antibody for monitoring of FCRLM1 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).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor FCRLM1 gene expression knockdown using RT-PCR Primer: FCRLM1 (h)-PR: sc-63284-PR (20 µl). 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.